Reviewer's report

Title: A comparison of tympanic and rectal temperatures in term Nigerian neonates

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Reviewer: John Stefano

Reviewer's report:

The authors have studied tympanic infrared thermometry and compared the methodology to rectal temperatures in 300 full term infants (gestational ages 37-42 weeks). The conclusion of the study is that although there was a good correlation between the two methodologies, the sensitivity of infrared thermometry was poor, especially at the lower range of temperatures that were studied. The authors' methodology is sound. The statistical analysis was complete using appropriate testing of accuracy (Bland-Altman plots), sensitivity and specificity, PPV, NPP and ROC curves. The authors conclude that although tympanic thermometry is possible and safe in term infants, its low sensitivity limits its clinical usefulness. I would agree with this conclusion. This is essentially a "negative" study of a methodology that would have limited clinical utility. This is highlighted by the fact that the most common clinical problem in newborns ability to thermoregulate is related to hypothermic measurements...where tympanic thermometry is least sensitive.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I have no disclosures, competing or financial interests.