Reviewer’s report

Title: Bioelectrical impedance analysis to estimate body composition in overweight and obese adolescents: comparison with dual-energy x-ray absorptiometry

Version: 4 Date: 17 August 2014

Reviewer: Jose Ramon Alvero Cruz

Reviewer’s report:

Re: 'Bioelectrical impedance analysis to estimate body composition in overweight and obese adolescents: comparison with dual-energy x-ray absorptiometry '
Ching S Wang, Leigh C Ward, Jocelyn Halim, Megan L Gow, Mandy Ho, Julie N Briody, Kelvin Leung, Chris T Cowell and Sarah P Garnett

BMC Pediatrics
Research article

The title does not represent all the data appearing in the paper:
Major Compulsory Revision

Abstract

Based on the data presented, the abstract would be incomplete
Major Compulsory Revision

Line 63: units for FFM and FM

Methods

¿The effect of the lunch of a sandwich and juice has been established before the BIA?
These factors tend to modify the body resistance total and therefore estimates of FM and FFM
Major Compulsory Revision

Line 147: Replace Inpendence for Impedance
Minor Essential Revisions

Line 181: it would be necessary a reference
Minor Essential Revisions

Results
Major Compulsory Revision

Line 245-253: The authors talk about correlations and Figure 1 represent Bland Altman plots. It is advisable to provide the correlation coefficient of the line

Line 291-292: ¿As they have been proven differences between FFM DXA and FFM derived equations?

Table 4 no reported statistical analysis

Discussion

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Line 322: Must explain the improvement agreement, with new derived equations

Line 335:

Why there is no bias between DXA and BIA and exists between DXA and derived equations?

Figure 1:

If the figure 1 are Bland Altman plots, are not drawn limits of agreement

Figure 2:

Is not completed

General reflections

Major Compulsory Revision

Not shown a greater precision of the new equations

It is not concluded that methods or equations are recommended for a accurate estimation of body composition in study subjects

Is recommended a new figures 1 and 2

Level of interest: An article of limited interest

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’