Reviewer's report

**Title:** Development and validation of anthropometric equations to estimate appendicular muscle mass in elderly women.

**Version:** 3  **Date:** 26 February 2013

**Reviewer:** Cassiano Ricardo Rech

**Reviewer's report:**

**Major Compulsory Revisions**

**Abstract**
Display summary in the two study objectives. Propose predictive models is not presented.

**Introduction:**
Its way not explored the arguments and evidence of validity of DXA to estimate the AMM. What is the validity of DXA for this estimate?

**Methods**
The number of subjects for the study is based on other research. The authors are able to calculate the sample size to verify that it is suitable for the statistical tests proposed. It is suggested to perform a calculation of power of the sample afterwards.

Report values technical error of measurement for anthropometric measurements.

In related text anthropometric measurements is missing a piece of text.

**Discussion**
The discussion is appropriate. However, authors should discuss the limitations of predictive models proposed. Changes in predictor variables can promote change in estimated muscle mass? What is the expected error for the model of individuals presenting infiltrações intramuscular fat tissue. This fact is not mentioned. But can increase the error in the estimates.

**Discretionary Essential revisions**
It is suggested that to be inserted in the tables the abbreviations explanatory labels. Thus, as the ratings statistics.

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

**Statistical review:** Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
'I declare that I have no competing interests'

Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
'I declare that I have no competing interests'

Do you hold or are you currently applying for any patents relating to the content of the manuscript? Have you received reimbursements, fees, funding, or salary from an organisation that holds or has applied for patents relating to the content of the manuscript?
'I declare that I have no competing interests'

Do you have any other financial competing interests?
'I declare that I have no competing interests'

Do you have any non-financial competing interests in relation to this paper?
'I declare that I have no competing interests'