

Reviewer's report

Title: To treat or not to treat: comparison of different criteria to determine whether weight loss is recommended

Version: 1 **Date:** 6 August 2007

Reviewer: Ross Hansen

Reviewer's report:

General

This is a clinically relevant, well-conducted study which extends recent similar work to illustrate the pitfalls involved in applying body mass index-based weight loss criteria to all individuals.

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

1. The abstract would be more valuable if more of the results were included.
2. Methods: Which measure (DXA or BIA) of body fat was used for calculating BFMI? This should be stated.
3. Results: While the statistical tests as described appear appropriate, there is no statement as to whether any differences between genders achieved statistical significance. Also, while the overall agreement between various criteria is assessed (via Kendall's Tau), it would be particularly useful to know of any significant differences in the proportion of subjects classified by BMI vs other criteria: for example, does an appropriate test show a difference between the 11.1% strongly recommended for weight loss according to BMI vs the 33.9% strongly recommended for weight loss according to the Metabolic Syndrome risk criteria? Any such statistical differences would strengthen the argument considerably.
4. Discussion, paragraph 2: statement re BFMI is not correct. It is an index that focuses on the amount of fat relative to stature.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

5. Abstract, line 3: ... preventive or therapeutic interventions.
6. Background: BMI should be defined where it is first introduced. Perhaps the last sentence in this 2nd paragraph could read "... suggested as an additional element in assessing adiposity."
7. Results: description of subject sample would be better at start of Methods.
8. Table 1: why isn't abdominal fat content listed in the "low" cell (shouldn't it be 100% ?). As noted above, were any of these differences in proportions

significant?

9. Results, 4th paragraph: I suggest "The most notable disagreement ..."

Discretionary Revisions (which the author can choose to ignore)

10. Background: does the statement re endocrine role apply to sleep apnoea?

11. Methods, Body Composition Assessment, 1st sentence: ... method that was reported by the appropriate reference study: ...

12. Methods, page 5: ... Gallagher et al ... their study.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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