Reviewer’s report

Title: Management of severe acute malnutrition by cow milk in resource contraints settings: experience of the Nutritional Centre of the University Clinics of Graben

Version: 0 Date: 27 Feb 2017

Reviewer: Nicola Lowe

Reviewer's report:

General Comments. This is a potentially interesting study, addressing an important issue regarding the strategy for handling nutrient supplement shortages in this context. It would have been useful to see a comparison of the nutrient composition of the CM/MASA and the TM/RUTF diets.

The quality of the English is not good, and there are numerous grammatical errors that need to be addressed.

The statistical methods need to be justified and more clearly explained. I am not convinced that the most appropriate analyses have been performed on this data set.

Specific comments:

Introduction

Page 4. Line 7 and 8. Do these stats refer to children worldwide? Please clarify.

Line 13 "…allowed to codify.." I do not know what this means

Lines 19 and 20. Is this malnutrition in general or in under 5 year olds?

Line 25. "starchy"…what is this?

Line 30 and 31. What is F75 and F100. Please provide the nutrition composition of each, or at least a reference in which the composition can be found.

Line 38. What is meant by "the domestic circuit"?
Methods

Page 5. Line 7. What were in inclusion/exclusion criteria? Were any children treated during the stated time frame excluded from the study analysis? If so, how many and why?

Line 34. Please explain how data were checked for consistency and completeness.

Line 37. The data processing and analysis sections needs more detail. What was the rational for the use of the statistical tests stated? What version of SPSS was used? I don't think "means of variances" is the correct term.

Line 42. I note that the patients did not give consent, therefore "enrolled" is not an appropriate term. How were the data anonymised? How was patient confidentiality maintained?

Results

Page 5. Line 54. If this was a database exercise, then how were patients "enrolled"?

Line 57. Are the minimum and max ages in months? Please insert units.

Page 6. Line 1. Insert Table number.

Table 1. It would be useful to have the age of the children in each group here, and their weight and MUAC at baseline.

Page 7. Line 1. Should this be table 2?

Table 2, 3 and 4. Rather than comparing means, it would make more sense to compare amount of weight gained in each of the treatment groups.

What is the ANOVA comparing? Please be explicit.

Line 55. The difference between the means may not be the same as the mean weight gain if individual weight gains are considered.
Figure 1, 2, 3 and 4. The axes need titles and units. The data points should also show the SD's. I am not sure what figure 4 is showing. Is this the sum of the "crosses" for all the children at each time point?

Page 10, line 13. "resolved" would be a better term than "melted"?

Page 10, line 12 to 21. How do these co-morbidities affect the interpretation of the data?

Line 12. Should this be table 5? I do not think that figure 1 is the most appropriate way to show these data as much of the individual detail is lost. I would suggest showing how many patients on each day had 1, 2 or 3 crosses in a histogram or something similar.

Lines 21 and 22. Please explain what these statistics mean.

Table 6. The data presented in this table need a full interpretation in the text.

Page 11. How was clinical outcome assessed? Please provide an explanation in the text of the data presented in table 7.

Discussion.

The discussion is very brief. It could be improved by a more thorough comparison with published literature, and a discussion of the limitations as well as the strengths of the approached used. I am concerned that the conclusions reached cannot be properly supported by the data and would suggest a more thorough statistical analysis of the data with the guidance of a statistician.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I recommend additional statistical review

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Needs some language corrections before being published

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