Reviewer’s report

Title: Weight-for-height and mid-upper-arm circumference should be used independently to diagnose acute malnutrition: policy implications

Version: 0 Date: 29 Sep 2015

Reviewer: dorcus kigaru

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Title: Different children are diagnosed as malnourished using weight-for-height and midupper arm circumference with different patterns across all countries examined: no simple way to choose a single admission criterion globally to treat malnourished children.

Comments

This paper is very informative, influential and timely - a must read for every nutritionist. The procedures in data management and manuscript writing are commendable. The discussion clearly shows action points that can influence diseases in patient management. I am sure that more variations would show up if percent of the median is also considered as use of Z scores is more sensitive (especially for interventions) than use of percent of the median. Specific attention should be given to the following:

Title: The given title is lengthy and not quite covering the entire paper, including the significance of the study. The short title - Both WHZ and MUAC for diagnosis of malnutrition is somehow preferred if an aspect of how the paper informs policy is included. The content in nearly all sections of the paper give direction on policy implication. Capture this in the title so as to cover not only diagnosis but policy actions by countries/stakeholders.

Introduction: The objective of this study, that yielded this paper is not quite clear. To examine the relationship between the two criteria for admission as differences is a factor/depth of analysis but what exactly is/was the objective of this study/paper?

Methods: Ok though there should be a mention in the methodology or limitation that this study assumed that standard methods of taking/conducting weight, height and MUAC measurements (SOPs) were followed in all the data sets.
Tables: Table 2 and 3 and indeed the rest, clarify whether or not the columns on WHZ <2 only, MUAC <125mm only, both criteria, Total WHZ < -2 and Total MUAC are percentages or not.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**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.

Yes

**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 am able to assess the statistics

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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