

MUAC as admission and/or discharge criteria in nutritional programs

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Background and objectives

The World Health Organization [WHO] has endorsed mid-upper arm circumference [MUAC] as an independent admission criterion to therapeutic feeding programs [TFP] for children 6-59 months old with severe acute malnutrition. However WHO still recommends weight gain to assess nutritional recovery due to lack of evidence. Here we report on nutritional recovery as assessed by weight gain and MUAC for a large TFP using MUAC < 120 mm as the admission criterion and compare program outcomes for both discharge criteria.

Methods

We analyzed data of patients admitted in a TFP in Burkina Faso between 2007 and 2011. From September 2007 – March 2009 [Period A] recovery was defined by 15% weight gain based on admission weight. From April 2009 – December 2011 [Period B] recovery was achieved at MUAC \geq 124 mm, with a 4 week minimum stay.

Results

50,841 children were admitted with MUAC < 120 mm. Median age was 13 months. Ninety percent of all admissions recovered: 22,094 (89.1%) during period A and 23,865 (91.6%) during period B. Average length of stay [ALS] for children recovered during period A was 53.9 days compared to 37.0 for those recovered over period B. During period A, ALS was paradoxically shorter for the most malnourished. During period B, ALS was inversely related to MUAC at admission and anthropometry upon discharge was similar across all MUAC admission categories for both MUAC and weight-for-height Z score [WHZ].

Conclusion

MUAC \geq 124 mm is a superior criterion to assess nutritional recovery in this cohort. Its use allocates program resources more efficiently.