

SIMPLE MEASURES TO INCREASE SIMPLE MEASUREMENTS

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Background

Malnutrition is a major public health issue that causes and contributes to significant morbidity and mortality of children in Low and Middle Income Countries (LMIC)¹. The WHO and Kenya MOH recommend that all children between the ages of 6 months and 5 years receive a nutritional evaluation using either Mid-Upper Arm Circumference (MUAC) or WHO Z (WHZ) score at each healthcare contact.^{1,2} The goals of this project, conducted at PCEA Chogoria Mission Hospital (PCMH), were to evaluate if malnutrition education combined with weekly measurement reminders would improve adherence to these standards and result in greater recognition of Severe Acute Malnutrition (SAM) by clinicians.

Methods

Using PCMH's Electronic Medical Record (EMR), charts for admitted paediatric patients, from 6 months to 5 years, were extracted. Then, the frequency of a MUAC or WHZ score was tallied over two time periods - February 1, 2017 to July 31, 2017 (pre-intervention) and August 01, 2017 to December 31, 2017 (post-intervention).

The intervention began with a lecture about malnutrition with Clinical Officer Interns (COIs) and Medical Officer Interns (MOIs). Thereafter, this same group received weekly reminders to assess paediatric patients on admission for malnutrition.

Pre- and post-intervention percentages were compared to evaluate impact.

Results

	Pre-Intervention	Post-Intervention
Paediatric Admissions (6 mo-5 yrs)	277	201
Patients with MUAC or WHZ Scores	101 (36.5%)	94 (46.8%)
Patients with SAM	8 (7.9%)	13 (13.8%)
Patients with Diagnosis of SAM in EMR	3 (37.5%)	9 (69.2%)

Conclusion

Over this 5 month period, an educational lecture combined with weekly reminders to key clinical staff improved evaluation for malnutrition (36.5% vs. 46.8%). Taking more measurements resulted in the opportunity to diagnose more patients with SAM (7.9% vs 13.8%), and ultimately improved the clinicians' recognition of SAM (37.5% vs 69.2%). Future considerations should include expanding the intervention to nurses and extending the assessment to children over 5 years.

A second future consideration would be evaluating how many of these patients received follow-up in our nutrition clinic.

References

1. WHO Recommendations on Child Health. May 2017
2. Republic of Kenya. Ministry of Health. Basic Paediatric Protocols 2016
3. Cloete J. Management of severe acute malnutrition. *South African Med J.* 2015;105(7):1-4. doi:10.7196/SAMJnew.7782.