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QUICK GUIDANCE ON SIMPLIFIED APPROACHES FOR THE MANAGEMENT OF WASTING **ADMISSIONS CRITERIA**

INTRODUCTION

Wasting treatment services currently use three different criteria independently to identify and admit children under 5 years; weight-for-height-z-score (WHZ), middle upper arm circumference (MUAC), or nutritional oedema. Each different criterion has a different approach and tools. WHZ needs scales to measure the weight of the child and a height board to measure the height, as well as a calculation table to turn these measurements into a z-score to determine eligibility for treatment. MUAC is measured using a MUAC tape with classifications of wasting severity marked by colour on the tape. Oedema is measured by pressing the thumbs into the tops of the feet of the child and assessing the level of indentation.

Whilst the WHZ measurement needs multiple tools, which are costly and require that the measurer is literate, MUAC and oedema measurements are much simpler, do not require literacy and the tools are both cheap and compact. As such, MUAC and oedema measurements

tend to be the preferred tools for widescale screening at community level.¹ To support the simplification of the delivery of treatment services and the targeting of the youngest and most vulnerable children,² many organisations have implemented a *MUAC-only* admission approach (which includes oedema), particularly in emergency contexts. In the COVID-19 context this adaptation was also promoted as a way to limit potential transmission.

OVERVIEW OF EVIDENCE & PRACTICE

This short overview will address two modifications which are commonly used in conjunction;

1. MUAC-only admissions (including oedema): whereby these two criteria are used as the only criteria for admitting children for treatment.
2. Expanded MUAC cut-off: whereby the MUAC cut-off is expanded from <115mm to <125mm for admissions.

MUAC-only admission is the most common simplification of wasting treatment services, and has featured in 25 unique studies, pilots or projects³. MUAC-only admission is also the “oldest” simplification tested, especially in emergency contexts. Where a MUAC-only protocol is implemented, some practitioners have chosen to systematically increase admission to treatment to all wasted children (i.e. all children <125mm MUAC) to either account for the fact that a MUAC-only protocol excludes some children who would have been admitted by WHZ, or to improve the continuum of treatment across the spectrum of wasting.

From 2007 to the present, MSF has operated MUAC and oedema only-based CMAM programming in several challenging emergency contexts, with MUAC thresholds for admission varying from <115mm to <125mm and differing prescribed lengths of stay according to contextual factors, prevailing mortality, presence of other nutrition actors, access constraints, and available resources⁴. In addition, all recent ALIMA trials have used a MUAC-only approach combined with an expanded admissions criteria of all children <125mm³. Most of the IRC trials have also adopted a MUAC-only approach with admissions for all children <125mm.³

Where an expanded admissions criterion has been used, this has often been combined with a single treatment product (RUTF) for the treatment of all wasted children and a reduced dosage over the course of recovery.⁵⁻⁷ For more information please refer to the *Quick Guidance on Modified Dosage*.

CONSIDERATIONS FOR IMPLEMENTATION

The issue with this approach is that MUAC and WHZ measurements do not always identify the same children and even with an expanded admissions criteria, some vulnerable children would not be eligible for treatment.³ There are many emerging arguments on the safety of MUAC-only admissions. Firstly, there is a growing body of evidence that MUAC is safe and effective as the sole anthropometric criterion (along with oedema) used to identify, manage and discharge children requiring treatment for SAM, even if further research is needed.⁸ Secondly, the use of MUAC as the sole anthropometric criteria for screening, admission and discharge has been shown to target those children most at risk for mortality. Rather than using WHZ as an additional criterion, greater sensitivity for the same specificity level for mortality can be achieved by increasing the MUAC cut-off.² Thirdly, data indicates that raising the MUAC cut-off to 125mm covers all children at risk of acute malnutrition-related deaths.⁹ Finally, MUAC-only programming is logistically easier to implement and more effective at detecting high risk children.¹⁰

There are limited alternatives for capturing children who are severely wasted by WHZ and not captured by MUAC even where cut-offs are expanded, particularly at community level. Until we know more about how MUAC can be adapted to better identify these children or additional tools are developed which allow for large-scale deployment at community level for the detection of all forms of wasting, pragmatic and programmatic decisions must be taken. A first step is ensuring that all children detectable by MUAC and oedema are being frequently screened and admitted for treatment. As such, promotion of the Family MUAC approach should be part of all treatment outreach and community engagement. Furthermore, routine screening of MUAC, oedema and WHZ must be strengthened at facility levels to ensure that children are not missed.

Understanding of how this modification will affect the number of children eligible for treatment and subsequent supply chain needs is an important consideration for implementation. Determining the appropriate cut-off for admissions should be analysed locally based on prevalence data to understand how changes to admissions criteria would impact upon inclusions and exclusions. Given that MUAC prevalence is much lower than WHZ prevalence, shifting to a MUAC only protocol even with an expanded admissions criteria may only have limited impact on the supply chain, especially when a reduced dosage is used in combination. Support on calculating caseload can be found in the Tools & Resources section of www.simplifiedapproaches.org.

As previously stated, based on current understanding, using a MUAC only admissions criteria will always exclude a sub-set of children who might have previously been admitted for treatment. Whilst the likelihood of these children being admitted for treatment under standard protocols may be low, given that MUAC is the tool most widely used at community level, this exclusion highlights the need to pair treatment and preventions interventions, particularly where child mortality is high. Where this simplification is implemented as a temporary measure, a timeframe and exit criteria should be developed with the ministry of health.

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