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SIMPLIFIED APPROACHES FOR THE MANAGEMENT OF WASTING

The term "simplified approaches" refers to a number of adaptations to the existing national and global protocols for the management of child wasting and are designed to improve effectiveness, quality, coverage and reduce the costs of caring for children with uncomplicated wasting.

The objective of "simplified approaches" is to improve the provision of care for wasted children so that barriers to access and uptake of quality services can be effectively and sustainably addressed by health systems around the world. UNICEF continues to support WHO and other partners in reviewing the emerging evidence while also supporting countries in the implementation of additional operational studies and pilots to build evidence-base while also responding to immediate contextual challenges and opportunities.

Now, more than ever, UNICEF and partners remain committed to supporting governments in delivering new and better solutions to care for children with wasting.

The most commonly implemented and researched simplifications are listed in table below.

	Current Practice →	Simplified Approach
1	MUAC and edema screenings conducted by Community Health Workers and other health center staff	**Family MUAC:** caregivers are trained and equipped to screen their own children for malnutrition by measuring Mid-Upper Arm Circumference and assessing for edematous malnutrition.[2,3]
2	Treatment of children with wasting without medical complications takes place in a central location, typically an outpatient health post, clinic, or facility.	**CHW-led treatment of Wasting:** Enabling and empowering community health workers (CHWs) to treat wasting without medical complications at community level.[4, 5,6,7, 8, 9, 10, 11]
3	Current treatment protocol calls for weekly follow-up visits for children receiving treatment.	**Reduced Frequency of Follow-up Visits:** Reducing the frequency of follow-up visits for wasted children admitted into treatment from weekly to bi-weekly or monthly.[12]
4	Children are admitted and discharged for treatment using three possible criteria: MUAC and/or oedema and/or weight for height.	**MUAC and/or edema only:** Use of MUAC and/or edema as the only criteria for admissions and discharge [13,14, 15,16]
5	Whilst severe wasting is usually treated systematically, children with moderate wasting are not always eligible for treatment	**Expanded admissions criteria:** Increasing the MUAC cut-off to admit all children <125mm, so that children across the spectrum of wasting who are considered higher risk are eligible for treatment [17,18,19,20]
6	Current treatment models use two different products to treat severe wasting (RUTF) and moderate wasting (FBF or RUSF).	**Use of a single treatment product:** Treating of wasted children, without complications, with one product—RUTF—across the entire spectrum of wasting [21,22,23, 24, 25, 26]
7	Under current protocol RUTF dosage is based on weight, and thus increases over the course of treatment. Furthermore, current dosage tables can be hard to administer and adhere to.	**Reduced Dosage:** normally used in combination with a single treatment product, but not necessarily, dosage of treatment product is most commonly reduced to; 2 sachets/day for severe wasting and 1 sachet/day for moderate wasting as determined by MUAC or oedema status.[27,28]

The final four modifications are often used together in what is commonly known as a *Simplified or Combined Nutritional Protocol.* The advantage of combining these modifications is that services across the continuum of wasting are harmonized and simplified in to one singular approach. In doing so, services become easier to implement for the health workforce and can be implemented by low-literate staff at decentralized levels whilst maintaining quality standards.[1]

ENDNOTES

1 Van Boetzelaer, E., Zhou, A., Tesfai, C., & Kozuki, N. (2019). Performance of low-literate community health workers treating severe acute malnutrition in South Sudan. Maternal and Child Nutrition, 15(April 2018), 1–9. https://doi.org/10.1111/mcn.12716

2 Blackwell, N. et.al. (2015) Mothers Understand And Can do it (MUAC): a comparison of mothers and community health workers determining mid-upper arm circumference in 103 children aged from 6 months to 5 years.

3 Alé FGB, Phelan KPQ et al (2016). Mothers screening for malnutrition by mid-upper arm circumference is non-inferior to community health workers: results from a large-scale pragmatic trial in rural Niger. Archives of Public Health.

4 Lopez-Ejeda, N. et.al. (2018) Can community health workers manage uncomplicated severe acute malnutrition? A review of operational experiences in delivering severe acute malnutrition treatment through community health platforms (Matern Child Nutr 2018 Apr 15 (2) https://doi.org/10.1111/mcn.12719)

5 Alvarez Moran, J.L. et.al. (2018) The effectiveness of treatment for Severe Acute Malnutrition (SAM) delivered by community health workers compared to a traditional facility based model (BMC Health Serv Res. 2018; 18: 207.)

6 Alvarez Moran, JL. et.al. (2018) Quality of care for treatment of uncomplicated severe acute malnutrition delivered by community health workers in a rural area of Mali. (Matern Child Nutr. 2018 Jan;14(1). doi: 10.1111/mcn.12449. Epub 2017 Apr 5)

7 Rogers. E. et.al. (2019) Evaluation of the cost-effectiveness of the treatment of uncomplicated severe acute malnutrition by lady health workers as compared to an outpatient therapeutic feeding programme in Sindh Province, Pakistan.(BMC Public Health. 2019 Jan 17;19(1):84. doi: 10.1186/s12889-018-6382-9)

8 Rogers, E., Ali, M., Fazal, S., Kumar, D., Guerrero, S., Hussain, I., . . . Alvarez Morán, J. (2018). Quality of care of treatment for uncomplicated severe acute malnutrition provided by lady health workers in Pakistan. Public Health Nutrition, 21(2), 385-390. doi:10.1017/S1368980017002610

9 Rogers E, Guerrero S, Kumar D, Soofi S, Fazal S, Martínez K, Morán JLA, Puett C. Evaluation of the cost-effectiveness of the treatment of uncomplicated severe acute malnutrition by lady health workers as compared to an outpatient therapeutic feeding programme in Sindh Province, Pakistan. BMC Public Health. 2019 Jan 17;19(1):84. doi: 10.1186/s12889-018-6382-9. PMID: 30654780; PMCID: PMC6337795.

10 López-Ejeda N, Charle-Cuellar P, G. B. Alé F, Álvarez JL, Vargas A, Guerrero S (2020) Bringing severe acute malnutrition treatment close to households through community health workers can lead to early admissions and improved discharge outcomes. PLoS ONE 15(2): e0227939. https://doi.org/10.1371/journal.pone.0227939

11 Charle-Cuéllar P, López-Ejeda N, Traore M, Coulibaly AB, Landouré A, Diawara F, Bunkembo M, Vargas A, Gil R, Briend A. Impact of Different Levels of Supervision on the Recovery of Severely Malnourished Children Treated by Community Health Workers in Mali. Nutrients. 2021; 13(2):367. https://doi.org/10.3390/nu13020367

12 Isanaka, S. et.al. (2017) Outpatient treatment of severe acute malnutrition: response to treatment with a reduced schedule of therapeutic food distribution (Am J Clin Nutr. 2017 May;105(5):1191-1197. doi: 10.3945/ajcn.116.148064. Epub 2017 Apr 12.)

13 Chitekwe, S., Biadgilign, S., Tolla, A., & Myatt, M. (2018). Mid-upper-arm circumference based case-detection, admission, and discharging of under five children in a large-scale community-based management of acute malnutrition program in Nigeria (Archives of Public Health., 76, (2018) (19)] DOI: 10.1186/s13690-018)

14 Burrell, A., Kerac, M., & Nabwera, H. (2017). Monitoring and discharging children being treated for severe acute malnutrition using mid-upper arm circumference: Secondary data analysis from rural Gambia. (International Health, 9(4). https://doi.org/10.1093/inthealth/ihx022)

15 Binns, P. J., Dale, N. M., Banda, T., Banda, C., Shaba, B., & Myatt, M. (2016). Safety and practicability of using mid-upper arm circumference as a discharge criterion in community based management of severe acute malnutrition in children aged 6 to 59 months programmes. (Archives of Public Health. https://doi.org/10.1186/s13690-016-0136-x)

16 Dale, N. M., Myatt, M., Prudhon, C., & Briend, A. (2013). Using Mid-Upper Arm Circumference to End Treatment of Severe Acute Malnutrition Leads to Higher Weight Gains in the Most Malnourished Children. (PLoS ONE, 8(2). https://doi.org/10.1371/journal.pone.0055404)

17 Chitekwe, S., Biadgilign, S., Tolla, A., & Myatt, M. (2018). Mid-upper-arm circumference based case-detection, admission, and discharging of under five children in a large-scale community-based management of acute malnutrition program in Nigeria (Archives of Public Health., 76, (2018) (19)] DOI: 10.1186/s13690-018)

18 Burrell, A., Kerac, M., & Nabwera, H. (2017). Monitoring and discharging children being treated for severe acute malnutrition using mid-upper arm circumference: Secondary data analysis from rural Gambia. (International Health, 9(4). https://doi.org/10.1093/inthealth/ihx022)

19 Binns, P. J., Dale, N. M., Banda, T., Banda, C., Shaba, B., & Myatt, M. (2016). Safety and practicability of using mid-upper arm circumference as a discharge criterion in community based management of severe acute malnutrition in children aged 6 to 59 months programmes. (Archives of Public Health. https://doi.org/10.1186/s13690-016-0136-x)

20 Dale, N. M., Myatt, M., Prudhon, C., & Briend, A. (2013). Using Mid-Upper Arm Circumference to End Treatment of Severe Acute Malnutrition Leads to Higher Weight Gains in the Most Malnourished Children. (PLoS ONE, 8(2). https://doi.org/10.1371/journal.pone.0055404)

21 Maust, A. et.a. (2015) Severe and Moderate Acute Malnutrition Can Be Successfully Managed with an Integrated Protocol in Sierra Leone (J Nutr. 2015 Nov;145(11):2604-9. doi: 10.3945/jn.115.214957. Epub 2015 Sep 30.)

22 Bailey, J. et.al. (2018) Combined Protocol for Acute Malnutrition Study (ComPAS) in rural South Sudan and urban Kenya: study protocol for a randomized controlled trial. (Trials. 2018 Apr 24;19(1):251. doi: 10.1186/s13063-018-2643-2.)

23 Stobaugh, H. C., Rogers, B. L., Webb, P., Rosenberg, I. H., Thakwalakwa, C., Maleta, K. M., … Manary, M. J. (2018). Household-level factors associated with relapse following discharge from treatment for moderate acute malnutrition. (British Journal of Nutrition, 1–8. https://doi.org/10.1017/S000711451800036)

24 Bailey J, Opondo C, Lelijveld N, Marron B, Onyo P, Musyoki EN, et al. (2020) A simplified, combined protocol versus standard treatment for acute malnutrition in children 6–59 months (ComPAS trial): A cluster-randomized controlled non-inferiority trial in Kenya and South Sudan. PLoS Med 17(7): e1003192. https://doi.org/10.1371/journal.pmed.1003192

25 Chase RP, Kerac M, Grant A, Manary M, Briend A, Opondo C, et al. (2020) Acute malnutrition recovery energy requirements based on mid-upper arm circumference: Secondary analysis of feeding program data from 5 countries, Combined Protocol for Acute Malnutrition Study (ComPAS) Stage 1. PLoS ONE 15(6): e0230452. https://doi.org/10.1371/journal.pone.0230452

26 Lelijveld N, Musyoki E, Adongo SW, Mayberry A, Wells JC, Opondo C, et al. (2021) Relapse and post-discharge body composition of children treated for acute malnutrition using a simplified, combined protocol: A nested cohort from the ComPAS RCT. PLoS ONE 16(2): e0245477. https://doi.org/10.1371/journal.pone.0245477

27 James PT, Van den Briel N, Rozet A, Israël A-D, Fenn B, Navarro-Colorado C. Low-dose RUTF protocol and improved service delivery lead to good programme outcomes in the treatment of uncomplicated SAM: a programme report from Myanmar (Matern Child Nutr. 2015; Open Access. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4672709/)

28 Bailey, J. et.al. (2018) Combined Protocol for Acute Malnutrition Study (ComPAS) in rural South Sudan and urban Kenya: study protocol for a randomized controlled trial. (Trials. 2018 Apr 24;19(1):251. doi: 10.1186/s13063-018-2643-2.)