

Modelling an alternative nutrition protocol generalisable to outpatient (MANGO) study

Upcoming research

Action Against Hunger conducts operational research with academic partners to contribute to building the scientific and operational evidence emerging from field programmes. Its research strategy focuses on testing innovative approaches designed to improve the effectiveness of its humanitarian responses and longer-term programmes, particularly in the treatment of acute malnutrition in children under five years old. The Modelling an Alternative Nutrition Protocol Generalizable to Outpatient (MANGO) study emerged in 2014 from a successful field innovation in Myanmar that used lower doses of ready-to-use therapeutic food (RTUF) in the management of uncomplicated severe acute malnutrition

(SAM) (James *et al*, 2015). This led to the development of the hypothesis that RUTF dosage could be reduced in the management of severe acute malnutrition (SAM) without harm.

The MANGO trial aims to test the efficacy and cost-efficacy of a reduced RUTF dosage for treatment of children aged 6 to 59 months with uncomplicated SAM (defined by weight-for-height z-score <-3 and/or mid-upper arm circumference <115mm) in 10 health centres of Fada N’Gourma district, eastern Burkina Faso. Children recruited between October 2016 and July 2018 were randomly allocated to one of two groups. For the first two weeks children in both groups were given the same amount of RUTF. From week three children in group one

received the same standard RUTF dose and children in group two received a reduced dose until their discharge from the programme. All children were given the same basic medical treatment, in line with SAM treatment protocols. Main outcomes measured were weight gain velocity and programme outcomes (children recovered, dead, defaulted, referred and non-respondents). Secondary outcomes measured included body composition, vitamin A and iron status, food intake and dietary diversity.

Findings will be available in 2019 through peer review publication and subsequent summary in *Field Exchange*. Additional results based on secondary outcomes will be available in 2019 and 2020.

The trial is registered on IRISCTN: <https://doi.org/10.1186/ISRCTN50039021>
More information can be found on the AAH website and MANGO blog: <https://mangoactioncontrelafaim.wordpress.com/>

References

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 www.ncbi.nlm.nih.gov/pmc/articles/PMC4672709/

Research Snapshots

Programmatic approaches for nutritional care in India: Perspectives on continuum of care

Research snapshot¹

Continuum of care (CoC) from pregnancy to early life is central to planning and designing public health interventions to address undernutrition through strategic, systematic and consistent nutrition-specific and nutrition-sensitive interventions. However, while practitioners and planners believe in CoC, it is understood differently by different disciplines. The core element of CoC is the emphasis on individual care experiences received over time and maintained through a care plan through which patients receive seamless care across transitions to different settings. These are linked to preventative and curative services that strengthen patients' positive health behaviour, self-care, needs identification and timely care-seeking. CoC involves health providers, the health system and the community, and demands integration, coordination and collaboration across different levels and multiple services.

Three prime drivers of CoC are: informational continuity (availability and use of information

across providers and services); relational continuity (sustained contact between client and a consistent provider across time); and management continuity (so that no services are missed, duplicated or delayed). These drivers operate through the core elements of people, an enabling environment (shaped by political commitment and a strong health system), and time (care received over time at all stages of life, based on the life-cycle approach). Care should extend from home to hospital and back again with appropriate referral and case management, with the community health caregiver as the critical link across the different care settings.

In India CoC in the management of undernutrition is currently weak. Nutrition care pivots around clinical management of complicated severe acute malnutrition (SAM) through nutrition rehabilitation centres (NRCs); whereas undernutrition in India is a much broader problem, with SAM and severe chronic malnutrition (SCM) commonly co-existing in the same chil-

dren. The existing public health service offers ample scope for the prevention, treatment and rehabilitation of undernourished children through integrated child development services (ICDS), sub-centres (SC), primary health centres (PHC) and NRCs. Current guidelines specify that complicated SAM cases are to be treated as inpatients in NRCs and uncomplicated SAM and moderate acute malnutrition (MAM) cases are to be managed in the community; however, there is no mention of which entity is responsible for the latter. ICDSs are an obvious choice, but are limited in their scope and poorly equipped to manage cases of discharged SAM, uncomplicated SAM, MAM and SCM. Furthermore, SAM management through NRCs has poor care outcomes, with low cure rates, high default rates, high numbers of non-responders and high secondary failure. This confirms weak CoC connecting nutrition care within and across different levels from community to facility and back to community. Implementation of integrated nutrition care will need to incorporate CoC elements at each level to make the big leap in addressing ongoing challenges.

¹ Dasgupta R and Chaand I. (2018) *Programmatic Approaches for Nutritional Care in India: Addressing the Continuum of Care Perspectives*. *Indian paediatrics*, volume 55, August 15 2018.