



## Wasting treatment: The effectiveness and coverage of a simplified protocol in Niger

This is a summary of the following paper: *Charle-Cuellar P, Lopez-Ejeda N, Gado A et al (2023) Effectiveness and Coverage of Severe Acute Malnutrition Treatment with a Simplified Protocol in a Humanitarian Context in Diffa, Niger. Nutrients, 15, 8, 1975.*

<https://doi.org/10.3390/nu15081975>

**A** non-randomised community-controlled trial assessed the effectiveness and coverage of a simplified combined protocol for treating severe wasting in children aged 6–59 months, in the humanitarian context of the Diffa region, Niger.

In both the control and intervention groups, severely wasted children received outpatient treatment at health centres and health posts, provided they had no medical complications. In the control group (n=174), the standard community-based management protocol was applied. The intervention group (n=406) followed a simplified protocol (ComPAS<sup>1</sup>) admitting children based on mid-upper arm circumference (MUAC) < 115mm or oedema presence and treating them with a fixed dose of ready-to-use therapeutic food (RUTF). Children weighing above 5kg received two sachets a day, while children weighing less than 5 kg received a reduced dose of 500 Kcal/day (one sachet a day) in order to not markedly exceed the standard Niger protocol. Children

were discharged from the intervention group when their oedema resolved and their MUAC reached ≥125 mm for two consecutive weeks.

To ensure comparability between groups, a socioeconomic questionnaire was administered to a subset of caregivers who coincidentally brought their children for treatment on the same day of data collection; this amounted to 117 caregivers from the control group and 251 from the intervention group. This questionnaire gathered data on demographics, livelihood, food security, and dietary diversity. The coverage of severe wasting treatment at both the study's outset (November 2020) and conclusion (August 2021), in both study areas, was evaluated using standardised (SLEAC<sup>2</sup>) methodology.

Study groups had comparable average ages, age distributions, sex ratios, and demographics. No cases of oedema were recorded in either group. The intervention group showed a higher cure rate (96%) compared to the control group (87.4%) (p<0.001). There was no difference in the average length of stay (35 days), but the interven-



tion group used fewer RUTF sachets per cured child (70 vs. 90) (<0.001). Discharge errors (the number of children who were discharged considered cured before having reached the relevant criteria) were significantly lower in the intervention group compared to the control group (3.2% vs 10.9%). Both groups experienced increased coverage.

The study had limitations, notably the absence of randomisation and an imbalance in group sizes. However, robust statistical tests were used to address this imbalance. The study also highlighted challenges related to health facility overload and access issues due to flooding, affecting the reach of children in need to treatment sites.

These findings complement those of a previous study in the Niger context, which explored a different simplified approach led by community health workers. Both studies offer insights for policymakers considering the adoption of simplified approaches, particularly in exceptional circumstances such as those in Diffa, to enhance the effective treatment of more children.

<sup>1</sup> <https://airbel.rescue.org/projects/compas-combined-protocol-for-acute-malnutrition-study/>

<sup>2</sup> <https://www.fantaproject.org/sites/default/files/resources/SQUEAC-SLEAC-Tech-Reference-Oct2012-SLEAC.pdf>

## Routine antibiotics for infant growth failure: A systematic review

This is a summary of the following paper: *Imdad A, Chen F, François M et al. (2023) Routine antibiotics for infants less than 6 months of age with growth failure/faltering: A systematic review. BMJ Open, 13, e071393.*

<https://bmjopen.bmj.com/content/bmjopen/13/5/e071393.full.pdf>

**M**alnutrition is both a driver of and exacerbating factor for infections. When children aged 6–59 months enter nutrition programmes, they are regularly prescribed routine antibiotics to counter this.

*“This practice in infants has the potential to harm due to recently identified risks of antibiotic use in infancy, including the diminishment of infant gut microbiome”*

This systematic review followed Cochrane Handbook<sup>1</sup> guidance and included individual and cluster randomised trials, as well as non-randomised trials and cohort studies with control groups. Case-control, case reports, case series, and commentaries were excluded.

The objective was to compare the effect of no routine antibiotics (or alternative regimens) against routine antibiotic prescription following treatment in infants aged under six months with growth failure or faltering (Box 1).

Studies in both hospital and community settings were considered, but neonatal intensive care and congenital anomaly study populations were excluded. Antibiotic regimens and doses

### Box 1 Study outcomes

- Mortality
- Clinical deterioration
- Recovery from comorbidity
- Markers of intestinal inflammation-serum C reactive protein
- Hospital-acquired infections
- Non-response

varied between studies, but only oral or intravenous administration was included.

Of 5,137 screened studies, 157 were deemed eligible for full-text review. None of these 157 studies qualified for inclusion in this review for the following reasons: ineligible study design (n=85), patient population (55), comparison group (7), intervention (8), and indicators (2).

Despite a robust methodology, the fact that not a single study was eligible highlights the paucity of evidence in this area. The researchers could have broadened their search criteria from aged under six months to under five years, which may have yielded results, but this would have answered a different study question for a different population.

It is unusual to see a systematic review with no evidence to draw upon, yet this is an important finding. Publication bias is a well-known phenomenon in health research – where so-called ‘null’ findings often do not make it to print. This article highlights the importance of featuring such work, as it flags the need for researchers to investigate the potential risks and benefits of antibiotic use in this population, with large sample sizes and robust methods. In summary, we now know what we don’t know.

<sup>1</sup> <https://training.cochrane.org/handbook>