

MANGO PROJECT

RANDOMIZED CONTROL TRIAL IN NON-INFERIORITY

Where: 10 health centers in the district of Fada N'Gourma, Burkina Faso

When: 2015-2020

Who: 801 children aged 6 to 59 months
SAM according to WHZ < -3 and/or MUAC < 115mm with appetite

What: To prove under ideal conditions the efficacy of a reduced dose of RUTF compared to a standard dose during the treatment of uncomplicated Severe Acute Malnutrition in children aged 6-59 months.



Standard Dose
n=399



Reduced Dose
n=402

Reduced dose from 3rd week onward, according to the child's weight.

Scientific Partners and Funders :

CIFF, ECHO, HIF- ELRHA, AAH Foundation
Univ. of Copenhagen, Centers for Disease Control and Prevention, (CDC, USA)

COST MINIMIZATION

THE REDUCED DOSE ALLOWS NET SAVINGS ON THE TOTAL COST PER CHILD TREATED

Data Collection

Included costs:

- Human Resources (HR) costs: estimated time to complete activities + value of salary
- Equipment costs: annuity on the value for the expected life span
- Consumables: average costs for 1 consultation
- Costs borne by children's families: travel, food and loss of productivity on the day of the health visit
- Health worker costs: same method as above
- RUTF costs: purchase, transport and storage costs.

Excluded costs: infrastructure, community screening, hospital referral and staff training related to SAM treatment, and costs related to post-discharge consultations.

We used a societal approach to analyze the economic impact of a reduced dose on SAM treatment.

Costs are expressed in US dollars (2017) using purchasing power parity (1 EUR = 0.8 USD).

Results

There was no significant difference in the number of visits during treatment between the standard and reduced dose groups. The different types of costs were similar in the two groups except for RUTF.

The overall cost of treatment for 399 children per group was \$36,550 for the standard dose and \$30,411 for the reduced dose, leading to a savings of 16.8% (\$15.4 saved per child treated). Respectively, RUTF accounts for 56.2% of total treatment costs with a standard dose and 47.0% with a reduced dose.

16.8% of savings

In a "real-life" scenario, the cost per child treated with a reduced dose is estimated at \$36.1 and \$47.6 with a standard dose. This reduction could lead to \$11.4 in savings per child treated, which could be used to treat 7212 additional children in Burkina Faso.

Average costs of SAM treatment with a reduced dose and with a standard dose

Dollar (2017) using the Purchasing Power Parity (1EUR = 0.8 USD)	Reduced dose (n=399)	Standard dose (n=401)	Net savings
Per child treated	\$76.2	\$91.6	\$15.4
Per consultation	\$9.6	\$11.6	\$2
For the treatment	\$30,411	\$36,550	\$6,140

Key Takeaways

The reduced dose resulted in **significant savings in the treatment of SAM**. Most of these savings were in the purchase and transportation of RUTF.

GLOSSARY

MUAC	Mid Upper Arm Circumference
RUTF	Ready-to-Use Therapeutic Food
SAM	Severe Acute Malnutrition
WHZ	Weight For Height Z-score