

# Effect of nutritional intervention with ready to use therapeutic food (RUTF) on blood lipid profiles of moderate to severely malnourished adults receiving antiretroviral therapy (ART)

<b>Submission date</b> 20/01/2009	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 24/03/2009	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 24/03/2009	<b>Condition category</b> Infections and Infestations	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

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### Contact details

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## Additional identifiers

EudraCT/CTIS number

IRAS number

ClinicalTrials.gov number

## Secondary identifying numbers

N/A

# Study information

## Scientific Title

A randomised controlled study assessing the effect of nutritional intervention with ready to use therapeutic food (RUTF) on blood lipid profiles of moderate to severely malnourished adults receiving antiretroviral therapy (ART) in Lusaka, Zambia

## Acronym

LRS (Lipid Research Study)

## Study objectives

The use of high fat energy dense ready to use therapeutic food in HIV positive malnourished adults receiving antiretroviral therapy (ART) does not produce deleterious changes in their blood lipid profiles.

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

University of Zambia Biomedical Research Ethics Committee, approved on 20/11/2008 (ref: 009-10-08)

## Study design

Randomised controlled trial

## Primary study design

Interventional

## Secondary study design

Randomised controlled trial

## Study setting(s)

Hospital

## Study type(s)

Treatment

## Participant information sheet

Not available in web format, please use the contact details below to request a patient information sheet

## Health condition(s) or problem(s) studied

HIV and malnutrition

## Interventions

Participants will be randomly allocated to the following two arms:

Intervention group: Participants will receive 2 jars/day of RUTF for 3 months, each jar weighs 250g (for 100g RUTF: energy content = 530 kcal, of which 47-59% are from oil and 10% are protein calories) in addition to prescribed ART regimen, nutritional advice and counselling.

Control group: Participants will receive ART, nutritional advice and counselling only

Total duration of interventions: 3 months

This trial will initially be a single-centre trial but may be extended to be a two-centre trial depending on recruitment rates.

## **Intervention Type**

Other

## **Phase**

Not Applicable

## **Primary outcome measure**

Total cholesterol/high density lipoprotein cholesterol (TC/HDL-C) ratio (TC/HDL-c ratio  $\geq 5$ ), assessed at baseline, Month 3, 6, 9 and 12 after enrolment into the study.

## **Secondary outcome measures**

The following will be assessed at baseline, Month 3, 6, 9 and 12 after enrolment into the study:

### 1. Lipid profile:

- 1.1. Mean change in total cholesterol (TC)
- 1.2. Mean change in high density lipoprotein cholesterol (HDL-c)
- 1.3. Mean change in low density lipoprotein cholesterol (LDL-c)
- 1.4. Mean change in total triglycerides (TG)

### 2. Body composition:

The endpoints will be the correlation between change in TC and in:

- 2.1. Body fat mass proportion
- 2.2. Fat free mass (FFM) proportion
- 2.3. Fat-free mass index (FFMI) which controls for height

### 3. Nutritional status:

The endpoints will be the correlation between change in TC and in:

- 3.1. Weight (kg)
- 3.2. MUAC (mm)
- 3.3. BMI ( $\text{kg}/\text{m}^2$ )
- 3.4. Waist circumference

Note: Some of the secondary endpoints (e.g., weight, MUAC, waist measurements) may be taken at two weekly intervals from baseline up to Month 3 as well as at the timepoints indicated above.

## **Overall study start date**

26/01/2009

## **Completion date**

30/06/2010

# Eligibility

## Key inclusion criteria

1. Eligible for ART or has started ART within last 2 weeks
2. Both males and females, age  $\geq 18$  years to  $\leq 49$  years
3. mid-upper arm circumference (MUAC)  $< 22.0$  cm
4. Body mass index (BMI)  $< 17.0$  kg/m<sup>2</sup>
5. CD4 Count  $> 50$
6. Signed informed consent

## Participant type(s)

Patient

## Age group

Adult

## Lower age limit

18 Years

## Sex

Both

## Target number of participants

168

## Key exclusion criteria

1. Pre-existing diabetes
2. History of cardiovascular disease (CVD) including hypercholesterolaemia, hypertension
3. On other medications that may have an effect on blood lipid profiles (besides routine HIV prophylaxis and tuberculosis [TB] treatment)
4. CD4 count  $< 50$
5. Unable to tolerate solid foods
6. Failed appetite test
7. Subjects with pacemakers or any implantable electronic devices
8. Pregnancy or lactation
9. Psychiatric illness
10. Nut allergies
11. Consent declined
12. Any other reason why the consenting investigator thinks it is not appropriate for them to take part

## Date of first enrolment

26/01/2009

## Date of final enrolment

30/06/2010

# Locations

## Countries of recruitment

Zambia

**Study participating centre**  
**Valid International/ Nutrition**  
Lusaka  
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P.O. Box 50719

## Sponsor information

**Organisation**  
Valid International (UK)

**Sponsor details**  
35 Leopold St  
Oxford  
United Kingdom  
OX4 1TW

**Sponsor type**  
Research organisation

**Website**  
<http://www.validinternational.org>

**ROR**  
<https://ror.org/00sb6vz77>

## Funder(s)

**Funder type**  
Research organisation

**Funder Name**  
Valid international (UK)

## Results and Publications

**Publication and dissemination plan**  
Not provided at time of registration

**Intention to publish date**

**Individual participant data (IPD) sharing plan**

**IPD sharing plan summary**

Not provided at time of registration