# Safe and effective iron supplementation in malaria endemic areas

Submission date	Recruitment status No longer recruiting	Prospectively registered		
10/04/2012		∐ Protocol		
Registration date	Overall study status Completed	Statistical analysis plan		
16/05/2012		[X] Results		
Last Edited	Condition category	Individual participant data		
30/01/2017	Haematological Disorders			

#### Plain English summary of protocol

Background and study aims

Iron supplementation is an important public health intervention. However, in areas where malaria is common, iron supplementation may not be without risk because iron can stimulate the growth of malaria parasites. The aim of this study is to compare the incidence of malaria between children given iron supplementation and children not given iron supplementation.

#### Who can participate?

School age children (6-18 years old) tested as not infected with malaria.

#### What does the study involve?

The children will be randomly allocated to receive Albendazole (a drug to treat infections caused by worms) for three consecutive days in combination with either iron supplementation or a matching placebo (dummy drug) for 6 days per week for a total of 8 weeks.

#### What are the possible benefits and risks of participating?

Participants will receive anti-worm treatment for worm infections and iron treatment for their anemia. The iron tablet is given in individual doses based on body weight and under supervision of a medical doctor, so there is little or no risk of dangers from the side effects.

Where is the study run from?

Nangapanda Region, District of Ende, Flores Island, Indonesia

When is the study starting and how long is it expected to run for? July 2011 to January 2012

Who is funding the study?
Nutricia Research Foundation (Netherlands)

Who is the main contact? Prof. Maria Yazdanabkshsh m.yazdanbakhsh@lumc.nl

# **Contact information**

#### Type(s)

Scientific

#### Contact name

Prof Maria Yazdanbakhsh

#### Contact details

Department of Parasitology Leiden University Medical Center Albinusdreef 2 Leiden Netherlands 2333 ZA

# Additional identifiers

**EudraCT/CTIS** number

IRAS number

ClinicalTrials.gov number

Secondary identifying numbers

2010-26

# Study information

#### Scientific Title

Towards safe and effective iron supplementation in malaria endemic areas: randomized double-blind placebo controlled trial

## **Study objectives**

Iron supplementation in anemic subjects with submicroscopic malaria increases hemoglobin levels but does not increase parasitaemia.

## Ethics approval required

Old ethics approval format

# Ethics approval(s)

Ethical Committee of Faculty of Medicine, University of Indonesia, 08/03/2010, ref: 96/PT02.FK/ETIK/2010, addendum ref: 459/PT02.FK/43/N/2011

## Study design

Randomized placebo-controlled clinical trial

# Primary study design

Interventional

#### Secondary study design

Randomised controlled trial

#### Study setting(s)

Other

#### Study type(s)

Prevention

#### 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

Anemia, malaria and geohelminths

#### **Interventions**

400 mg albendazole per day orally for three consecutive days in combination with iron supplementation or matching placebo 6 mg/kg body weight for 6 days/week for total duration 8 weeks.

#### Intervention Type

Supplement

#### Phase

Not Applicable

#### Drug/device/biological/vaccine name(s)

Albendazole, iron supplements

#### Primary outcome measure

Microscopic and submicroscopic incidence of malaria

## Secondary outcome measures

- 1. Changes in hemoglobin levels
- 2. Iron parameters (ferritin, sTFR)
- 3. Endothelial cells markers (ICAM-1 and Vwf)
- 4. C-reactive protein (CRP)

## Overall study start date

28/07/2011

## Completion date

31/01/2012

# **Eligibility**

# Key inclusion criteria

- 1. Those who have given informed consent
- 2. Both males and females

- 3. Aged between 6-18 years old
- 4. Malarial parasitemia negative by microscopy
- 5. Hemoglobin (Hb) > 8 g/dl
- 6. Hb < 11.5 g/dL for children aged <7 years
- 7. Hb <12 g/dL for girls aged  $\geq$  7 years
- 8. Hb <13 g/dL for boys aged >=7 years

#### Participant type(s)

**Patient** 

#### Age group

Child

#### Lower age limit

6 Years

#### Upper age limit

18 Years

#### Sex

Both

#### Target number of participants

350

#### Key exclusion criteria

Clinical symptoms indicating malaria or any severe underlying condition

#### Date of first enrolment

28/07/2011

#### Date of final enrolment

31/01/2012

# Locations

#### Countries of recruitment

Indonesia

Netherlands

## Study participating centre Leiden University Medical Center

Leiden Netherlands 2333 ZA

# Sponsor information

#### Organisation

Nutricia Research Foundation (Netherlands)

#### Sponsor details

Danone Place Schiphol P.O. Box 75538 Schiphol-Airport Amsterdam Netherlands 1118 ZN

#### Sponsor type

Research organisation

#### Website

http://www.nutricia-research-foundation.org

#### **ROR**

https://ror.org/00vt3ry76

# Funder(s)

#### Funder type

Research organisation

#### **Funder Name**

Nutricia Research Foundation (Netherlands)

#### Alternative Name(s)

#### **Funding Body Type**

Private sector organisation

#### **Funding Body Subtype**

Trusts, charities, foundations (both public and private)

#### Location

Netherlands

# **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

# **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article	results	28/01/2017		Yes	No