# Levamisole hydrochloride as adjunctive therapy in severe falciparum malaria with high parasitaemia

Submission date Recruitment status Prospectively registered 24/05/2006 No longer recruiting [ ] Protocol [ ] Statistical analysis plan Registration date Overall study status 24/05/2006 Completed [X] Results [ ] Individual participant data Last Edited Condition category 17/12/2013 Infections and Infestations

# Plain English summary of protocol

Not provided at time of registration

# Contact information

# Type(s)

Scientific

### Contact name

Dr Arjen Dondorp

### Contact details

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# Additional identifiers

**EudraCT/CTIS** number

IRAS number

ClinicalTrials.gov number

**Secondary identifying numbers** 077166/Z/05/Z

# Study information

### Scientific Title

# Study objectives

Cytoadherence of parasitised erythrocytes to microvascular endothelium is the pathological hallmark of falciparum malaria. In-vitro studies show that levamisole, a specific alkaline-phosphatase inhibitor, decreases adhesion of parasitised erythrocytes to CD36. A pilot study in uncomplicated malaria indicates that this happens in-vivo.

Please note that as of 29/07/2010 this record has been updated to incorporate protocol changes; all changes can be found in the relevant section with the above update date. At this time, please note that this trial is not recruiting in India, therefore this country of recruitment has been removed. Also, the target sample size and anticipated end date have also been updated; this initial information at the time of registration was as follows:

Initial target number of participants: 40 Initial anticipated end date: 01/09/2007

All other changes can be found in the relevant field.

# Ethics approval required

Old ethics approval format

# Ethics approval(s)

Added 17/02/2009: Oxford Tropical Research Ethics Committee gave approval on the 1st June 06 (ref: 007-06)

# Study design

Multicentre, randomised controlled trial

# Primary study design

Interventional

# Secondary study design

Randomised controlled trial

### Study setting(s)

Not specified

# Study type(s)

Treatment

# Participant information sheet

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

Severe falciparum malaria with high parasitaemia

### **Interventions**

Current information as of 29/07/2010;

Patient admitted with severe falciparum malaria and peripheral blood parasitaemia more than or equal to 2% will be randomised to either adjunctive treatment with a single dose of 150 mg oral levamisole hydrochloride, or no adjunctive treatment. Anti-malarial treatment will be intravenous artesunate.

Initial information at time of registration:

Patient admitted with severe falciparum malaria and peripheral blood parasitaemia more than or equal to 5% will be randomised to either adjunctive treatment with a single dose of 150 mg oral levamisole hydrochloride, or no adjunctive treatment. Anti-malarial treatment will be intravenous artesunate.

# Intervention Type

Drug

### Phase

**Not Specified** 

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

Levamisole hydrochloride, artesunate

# Primary outcome measure

Sequential assessment of peripheral blood parasitaemia and parasite stages. If sequestration is indeed reduced by levamisole, an initial increase in peripheral parasitaemia, and an increase in the number of late stages in the peripheral blood smear can be expected.

# Secondary outcome measures

- 1. Microvascular flow measured using orthogonal polarisation spectral imaging
- 2. Lactate clearance time

# Overall study start date

22/05/2006

# Completion date

30/08/2010

# Eligibility

# Key inclusion criteria

Current information as of 29/07/2010:

- 1. The patient or attending relative, able and willing to give informed consent. The proposed consent form and information sheets are attached and will be translated into the local language.
- 2. Severe falciparum malaria
- 3. Peripheral blood parasitaemia more than or equal to 2%
- 4. Patients aged 16 to 65 years old, both genders
- 5. No contraindications to levamisole, or artesunate therapy, such as documented allergies to either of the drugs

Initial information at time of registration:

1. The patient or attending relative, able and willing to give informed consent. The proposed

consent form and information sheets are attached and will be translated into the local language.

- 2. Severe falciparum malaria
- 3. Peripheral blood parasitaemia more than or equal to 5%
- 4. Patients aged 16 to 65 years old, both genders
- 5. No contraindications to levamisole, or artesunate therapy, such as documented allergies to either of the drugs

# Participant type(s)

Patient

# Age group

Adult

### Sex

Both

# Target number of participants

60

# Key exclusion criteria

Current information as of 29/07/2010:

- 1. Patient or relatives unable or unwilling to give informed consent
- 2. More than one dose of previous antimalarial treatment within one week of admission
- 3. Pregnancy or breastfeeding

Initial information at time of registration:

- 1. Patient or relatives unable or unwilling to give informed consent
- 2. Previous antimalarial treatment within one week of admission
- 3. Pregnancy

# Date of first enrolment

22/05/2006

### Date of final enrolment

30/08/2010

# Locations

# Countries of recruitment

Bangladesh

Thailand

Study participating centre Mahidol University

Bangkok Thailand 10400

# Sponsor information

# Organisation

University of Oxford (United Kingdom)

# Sponsor details

Centre for Clinical Vaccinology and Tropical Medicine
Churchill Hospital
Old Road
Headington
Oxford
England
United Kingdom
OX3 7LJ
+44 (0)1865 857433
heather.house@admin.ox.ac.uk

# Sponsor type

University/education

# Website

http://www.jr2.ox.ac.uk/ndm/Tropical\_Medicine

# **ROR**

https://ror.org/052gg0110

# Funder(s)

# Funder type

Charity

# **Funder Name**

The Wellcome Trust (UK) (grant ref: 077166)

# **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	01/01/2014		Yes	No