# Children with HIV in Africa - Pharmacokinetics and Adherence of Simple Antiretroviral Regimens (CHAPAS-2)

Submission date	Recruitment status	<ul><li>Prospectively registered</li></ul>
28/02/2011	No longer recruiting	Protocol
Registration date	Overall study status	Statistical analysis plan
28/04/2011	Completed	Results
Last Edited	Condition category	Individual participant data
28/04/2011	Infections and Infestations	Record updated in last year

# Plain English summary of protocol

Not provided at time of registration

# Contact information

# Type(s)

Scientific

#### Contact name

Prof Diana Gibb

#### 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

Children with HIV in Africa - Pharmacokinetics and Adherence of Simple Antiretroviral Regimens (CHAPAS-2): an open, randomised, controlled, phase I, crossover trial

#### Acronym

CHAPAS-2

#### **Study objectives**

- 1. There is no difference in blood drug levels (overall area under the plasma concentration time curve (AUC) and Cmin) among children aged 4-13 years taking Cipla sprinkle or Cipla tablet formulations of ritonavir-boosted-lopinavir together with food and also compared to historical controls.
- 2. There is no difference in blood drug levels (overall area under the plasma concentration time curve (AUC) and Cmin) among infants (under 1 year) taking Abbott Kaletra® syrup or Cipla sprinkle formulations of ritonavir-boosted-lopinavir together with food according to World Health Oragnisation (WHO) doses and weightbands and also compared to historical controls.

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

- 1. UCL Research Ethics Committee approved on 19th October 2009, (ref: application 1665/001)
- 2. Joint Clinical Research Centre IRB approved on 30th October 2009
- 3. Ugandan National Council of Science and Technology approved on 23rd April 2010

# Study design

Open randomised controlled phase I crossover 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

Human immunodeficiency virus (HIV)

#### Interventions

24 children (aged 4-13 years able to take paediatric LPV/r tablets and either currently receiving LPV/r or about to start LPV/r containing ART) in a (1:1) ratio to LPV/r either in sprinkle or tablet formulation with food. After 4 weeks on allocated treatment children will have a 12 hour pharmacokinetcis (PK) day with 7 blood draws (1.5-2.5ml each). Children will then switch LPV/r formulation to the other formulation (sprinkle or tablet) and continue to take that formulation with food for a further 4 weeks. At week 8, children will have a second 12 hour PK day of 7 blood draws (1.5-2.5ml each) after which children will choose which formulation of LPV/r they wish to remain on.

A third non-randomised intervention arm will include infants from 3 months to 1 year, already receiving or about to start LPV/r syrup with food. Infants will be followed for 4 weeks followed by a 12 hour PK day. They will then switch formulation to receive LPV/r sprinkle with food for 4 weeks followed by a second 12 hour PK day of 7 blood draws (1.5-2.5ml each) at week 8.

### **Intervention Type**

Other

#### Phase

Phase I

#### Primary outcome measure

1. To determine the pharmacokinetics (PK) of ritonavir-boosted-lopinavir (LPV/r) in a twice daily paediatric co-formulated fixed dose sprinkle combination (Lopimune, Cipla pharmaceuticals) and compare it to LPV/r in a twice daily paediatric co-formulated fixed dose tablet combination (Cipla Pharmaceuticals), both with food, in HIV-infected African children aged 4-12 years 2. To determine the pharmacokinetics (PK) of ritonavir-boosted-lopinavir (LPV/r) in a twice daily paediatric co-formulated fixed dose sprinkle combination (Lopimune, Cipla pharmaceuticals) and compare it to LPV/r in a twice daily paediatric co-formulated syrup (Abbott Pharmaceuticals), both with food, in HIV-infected African infants under 1 year of age

## Secondary outcome measures

- 1. To compare the formulation preferences of children and their carers in terms of sprinkle or tablets
- 2. To compare the formulation preferences of infants carers in terms of sprinkle or syrups 3. To evaluate the effects of age, sex, severity of illness and anthropometric measurements [weight-for-age, height-for-age, body mass index (BMI), middle upper arm circumference (MUAC) and malnutrition indices] on pharmacokinetic parameters for LPV/r in HIV-infected African children. Specifically, to examine whether malnutrition modifies the pharmacokinetic characteristics of boosted Protease Inhibitors (PIs).

## Overall study start date

15/04/2011

# Completion date

01/03/2012

# **Eligibility**

# Key inclusion criteria

1. Human immunodeficiency virus (HIV) infected infants aged 3 months to < 12 months currently taking or about to start Lopinavir/ritonavir (LPV/r) syrup based first-line following WHO

guidelines 2008 [7] or

- 2. HIV infected children able to swallow paediatric LPV/r tablets and aged 4-13 years and < 25Kg, currently taking or about to start LPV/r based second-line following WHO guidelines
- 2. Carers and children where appropriate, willing and able to give informed consent

# Participant type(s)

**Patient** 

#### Age group

Neonate

#### Sex

Both

### Target number of participants

40

## Key exclusion criteria

Children:

- 1. Who are expected to change weight bands (i.e. change dose) after enrollment and before PK day at week 8
- 2. With anaemia (haemoglobin < 8.5g/dL) or liver enzymes grade 2 or higher
- 3. With illnesses that could influence the pharmacokinetics of the antiretroviral (ARV) drugs at week 4 and week 8 e.g. severe diarrhoea, vomiting, renal or liver disease
- 4. On concomitant medications that are known to interact with the ARV drugs

#### Date of first enrolment

15/04/2011

#### Date of final enrolment

01/03/2012

# Locations

#### Countries of recruitment

England

Uganda

**United Kingdom** 

Study participating centre Medical Research Council

London United Kingdom NW1 2DA

# Sponsor information

#### Organisation

Medical Research Council (UK)

#### Sponsor details

MRC Centre London Stephenson House 158-160 North Gower Street London United Kingdom NW1 2ND

#### Sponsor type

Research council

#### **ROR**

https://ror.org/03x94j517

# Funder(s)

# Funder type

Charity

#### **Funder Name**

Monument Trust (UK) (ref: grant ID - MON4951)

# **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