

# Combination anti-fungal therapy in cryptococcal meningitis

**Submission date**  
22/07/2005

**Recruitment status**  
No longer recruiting

☐ Prospectively registered

☐ Protocol

**Registration date**  
22/07/2005

**Overall study status**  
Completed

☐ Statistical analysis plan

☒ Results

**Last Edited**  
05/04/2013

**Condition category**  
Infections and Infestations

☐ Individual participant data

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Dr Jeremy Farrar

**Contact details**  
Hospital for Tropical Diseases  
The Hospital for Tropical Diseases  
Oxford University Clinical Research  
190 Ben Ham Tu  
Ho Chi Minh City  
Viet Nam  
5  
+84 88362225  
jfarrar@oucru.org

## Additional identifiers

**Protocol serial number**  
061330

## Study information

**Scientific Title**  
A randomised controlled trial of combination anti-fungal therapy in cryptococcal meningitis

## **Acronym**

BK Study

## **Study objectives**

Cryptococcal meningitis is the second leading cause of death in Human Immunodeficiency Virus (HIV) patients worldwide after Tuberculosis (TB). The Hospital for Tropical Diseases has seen a dramatic increase in the number of cases of cryptococcal meningitis as the HIV epidemic has accelerated in Viet Nam. The mortality rate is high, even with treatment according to international guidelines. Optimum treatment for cryptococcal meningitis is not determined. Combination treatment with amphotericin and flucytosine has shown no clinical benefit when compared with amphotericin alone, yet this combination of potentially toxic drugs has become the standard of care, recommended in US and European guidelines.

The azole drugs, with their ease of administration and good safety profile, have not been investigated in combination with amphotericin in the treatment of cryptococcal meningitis. The trial will determine whether amphotericin combined with high dose fluconazole is superior to amphotericin alone or amphotericin combined with flucytosine, using clinical endpoints.

As of 18/03/2009 the anticipated trial dates of this record have been updated; the initial trial dates at the time of registration were:

Initial anticipated start date: 01/04/2004

Initial anticipated end date: 01/01/2006

## **Ethics approval required**

Old ethics approval format

## **Ethics approval(s)**

The ethical review board of the Hospital for Tropical Diseases, Ho Chi Minh City, and Liverpool School of Tropical Medicine, UK gave approval prior to participant recruitment.

## **Primary study design**

Interventional

## **Study design**

Open label randomised controlled trial

## **Study type(s)**

Treatment

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

Cryptococcal meningitis

## **Interventions**

Treatment Group 1:

Induction Treatment: Amphotericin 1 mg/kg/day for 4 weeks

Consolidation Treatment: Fluconazole 400 mg/day for 6 weeks

Secondary Prophylaxis: Fluconazole 200 mg/day

#### Treatment Group 2:

Induction Treatment: Amphotericin 1 mg/kg/day plus flucytosine 100 mg/kg/day for 2 weeks

Consolidation Treatment: Fluconazole 400 mg/day for 8 weeks

Secondary Prophylaxis: Fluconazole 200 mg/day

#### Treatment Group 3:

Induction Treatment: Amphotericin 1 mg/kg/day plus Fluconazole 800 mg/day for 2 weeks

Consolidation Treatment: Fluconazole 400 mg/day for 8 weeks

Secondary Prophylaxis: Fluconazole 200 mg/day

### **Intervention Type**

Drug

### **Phase**

Not Applicable

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

Fluconazole, amphotericin and flucytosine

### **Primary outcome(s)**

Mortality at 2 and 10 weeks

### **Key secondary outcome(s)**

Amended as of 19/03/2009:

1. Rates of disability at 10 weeks
2. Rates of clearance of yeasts from CSF at 6 months
3. Changes in immune parameters at 6 months
4. Combined death and disability at 6 months
5. Death at 6 months

Initial information at the time of registration:

1. Duration of ventilation
2. Duration of supplemental oxygen
3. Duration of hospitalisation
4. Viral load in clinical specimens
5. Cytokine levels
6. Adverse effects

### **Completion date**

01/12/2009

## **Eligibility**

### **Key inclusion criteria**

1. Patients aged 15 years and older
2. HIV positive
3. Cryptococcal meningitis defined by a clinical syndrome consistent with cryptococcal meningitis and one or more of: positive Cerebrospinal Fluid (CSF) culture, positive cryptococcal antigen in CSF, positive CSF india ink test

### **Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Key exclusion criteria**

1. Pregnancy
2. Renal or liver failure
3. Active TB
4. Aged less than 15 years old

**Date of first enrolment**

22/04/2004

**Date of final enrolment**

01/12/2009

## **Locations**

**Countries of recruitment**

Viet Nam

**Study participating centre**

**Hospital for Tropical Diseases**

Ho Chi Minh City

Viet Nam

5

## **Sponsor information**

**Organisation**

University of Oxford (UK)

**ROR**

<https://ror.org/052gg0110>

## **Funder(s)**

**Funder type**

Charity

**Funder Name**

The Wellcome Trust (UK) (grant ref: 061330)

## Results and Publications

**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? |
|---------------------------------|---------|--------------|------------|----------------|-----------------|
| <a href="#">Results article</a> | results | 04/04/2013   |            | Yes            | No              |