# Omega 3 fatty acid treatment in patients with epilepsy

Submission date 13/05/2014	<b>Recruitment status</b> No longer recruiting <b>Overall study status</b> Completed		
Registration date 20/08/2014			
Last Edited 10/05/2021	<b>Condition category</b> Nervous System Diseases		

[X] Prospectively registered

[] Protocol

[] Statistical analysis plan

[X] Results

[] Individual participant data

#### Plain English summary of protocol

Background and study aims

Eating foods rich in omega 3 fatty acids, EPA and DHA is considered to be very good for us. There is a lot of evidence to suggest they help prevent a number of diseases, including cardiovascular (for example heart) disease and neurological (for example brain) disease as well as maintain the normal functioning of both the heart and the brain. It is also thought that they may help in reducing drug-induced toxicity and boosting how well a drug works against a disease. It is possible that omega 3 fatty acids will help patients with epilepsy by reducing the number of seizures that they have and by making those that they do have, less severe. It is also thought that they may prevent the cardiac arrhythmia (irregular beating of the heart) and sudden unexpected death that can happen after a seizure and help control the psychological effects of the disease. As there is evidence that seizures may result in inflammation, epileptic patients may also benefit from the anti-inflammatory effects of omega 3 fatty acids. Here, we will investigate how omega 3 fatty acids may help to prevent patients with difficult to treat epilepsy for which there is no known cause (refractory idiopathic epilepsy) from having seizures and reduce the possibility of dying from them.

Who can participate?

Patients with refractory idiopathic epilepsy, aged 17 to 50 years.

#### What does the study involve?

Patients are randomly allocated into one of two groups. Those in group 1 are asked to take an omega 3 supplement contains 1.5g DHA and 390mg EPA for one year. Those in group 2 take a placebo (dummy pill). Blood samples are collected from all participants at the start and end of the trial for analysis. Clinical history, neurological and psychological/psychiatric assessments are also carried out at the start and end of the trial.

What are the possible benefits and risks of participating? Each participant will receive a close monitoring throughout the study duration. There is no risk to participating.

#### Where is the study run from?

The study has been set up by the Lipidomics and Nutrition Research Centre, Faculty of Life

Sciences and Computing, London Metropolitan University (UK) in collaboration with the University of Khartoum Hospital, Khartoum (Sudan).

When is study starting and how long is it expected to run for? September 2014 to February 2017

Who is funding the study? Lipidomics and Nutrition Research Centre, London (UK) University of Khartoum Hospital (Sudan) Efamol Limited (UK)

Who is the main contact? Professor Kebreab Ghebremeskel, k.ghebremeskel@londonmet.ac.uk OR keb@kebgm.demon.co.uk

# **Contact information**

**Type(s)** Scientific

**Contact name** Prof Kebreab Ghebremeskel

#### **Contact details**

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# Additional identifiers

EudraCT/CTIS number

**IRAS number** 

ClinicalTrials.gov number

Secondary identifying numbers EPILOEMGA3 v1

# Study information

**Scientific Title** Omega 3 fatty acid supplementation to prevent seizure in patients with refractory epilepsy

#### Acronym

**EPILOMEGA3** 

#### **Study objectives**

1. Core null hypothesis: Patients with refractory epilepsy do not have abnormal plasma and blood cell fatty acids; Supplementation with the long-chain polyunsaturated omega 3 fatty acids, EPA and DHA, will not prevent seizures in patients with refractory epilepsy.

2. Subsidiary null hypothesis: Refractory epileptics supplemented with EPA and DHA will not have enhanced mental performance, cognition and memory.

3. Nested null hypotheses: Treatment of refractory epileptic patients with EPA and DHA will not improve behavioural and psychiatric disorders; modulate clinical markers of cardiac arrhythmias; down-regulate inflammatory markers.

#### Ethics approval required

Old ethics approval format

#### Ethics approval(s)

Research Ethics Committee of the Faculty of Medicine, University of Khartoum, Sudan, 26/11 /2012

**Study design** Double-blind placebo-controlled randomised intervention trial

#### Primary study design

Interventional

#### Secondary study design

Randomised controlled trial

Study setting(s) Other

#### 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

Epilepsy

#### Interventions

- 1. Active supplement (contains 1.5g DHA and 390mg EPA)
- 2. Placebo (1.9g of saturated and monounsaturated fatty acid blend)

# Intervention Type

Supplement

Primary outcome measure

Complete elimination or reduction in the frequency seizures

#### Secondary outcome measures

1. Improvements of cognition, memory, and manifestations of behavioural and psychiatric disorders 2. Modulation of clinical markers of cardiac arrhythmias; down regulation of inflammatory markers

#### Overall study start date

01/09/2014

### Completion date

28/02/2017

# Eligibility

#### Key inclusion criteria

Patients with refractory idiopathic epilepsy, aged 17 to 50 years

# Participant type(s)

Patient

#### **Age group** Adult

Sex Both

# **Target number of participants** 70

**Total final enrolment** 99

#### Key exclusion criteria

- 1. Age under 17 and over 50 years
- 2. Other diseases in addition to epilepsy
- 3. Structural lesions
- 4. Pregnancy
- 5. Responsive to AED
- 6. Less than two seizures a month

#### Date of first enrolment

01/09/2014

# Date of final enrolment 28/02/2017

# Locations

Countries of recruitment

England

Sudan

United Kingdom

**Study participating centre London Metropolitan University** London United Kingdom N7 8DB

## Sponsor information

**Organisation** Faculty of Life Sciences and Computing, London Metropolitan University (UK)

Sponsor details 166-220 Holloway Road London England United Kingdom N7 8DB d.palmer-brown@londonmet.ac.uk

**Sponsor type** University/education

Website http://www.londonmet.ac.uk

ROR https://ror.org/00ae33288

# Funder(s)

**Funder type** University/education **Funder Name** University of Khartoum Hospital (Sudan)

**Funder Name** Efamol Limited (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

#### **Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<u>Results article</u>		01/10/2018	10/05/2021	Yes	No