

# Minocycline in Alzheimer's disease

<b>Submission date</b> 24/07/2013	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 24/07/2013	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 19/11/2019	<b>Condition category</b> Nervous System Diseases	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

Alzheimer's disease (a mental disorder) is a major public health issue and there is a clear need to discover and develop treatments that can stop or at least delay disease progression. Unfortunately, although we have drug treatments that can reasonably improve some of the symptoms of Alzheimer's disease, we do not yet have treatments that can slow down or stop deterioration. Minocycline is an antibiotic drug that has also been shown to slow down deterioration in some research using animal models. This makes it the most promising drug for treatment that is not currently in trials and it is cheap and well tolerated. This study will find out the effects of two years of minocycline treatment on deterioration in mental processes and activities of daily living in patients with early Alzheimer's disease assessed and managed within NHS Memory Services. If minocycline can be shown to be working well, this would rapidly pave the way for further studies and ultimately the availability of a low cost and safe treatment for this common and devastating condition.

### Who can participate?

Any patient aged 50 or over, diagnosed with Alzheimer's disease, can participate in this study.

### What does the study involve?

Participants will be randomly allocated to one of three groups: daily treatment with 400 mg minocycline, 200 mg minocycline or a dummy drug (placebo). They will undergo this treatment for two years.

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

It is possible that minocycline may slow the rate of progression of disease or reduce symptoms of Alzheimer's disease, but this cannot be guaranteed. Participation will provide useful information about the disease and minocycline. It is possible that patients may experience side effects from taking the study drug. These side effects may include nausea, diarrhoea and dizziness. Rarely the drug can cause increased sensitivity to sunlight and, very rarely, joint pain. In addition, there is always a risk of unknown side effects occurring.

### Where is the study run from?

The study is run across 20 sites in England and Scotland.

When is study starting and how long is it expected to run for?  
The study started in June 2013 and will run until 2018.

Who is funding the study?  
The study is funded by the National Institute of Health Research (NIHR), UK.

Who is the main contact?  
Dr Olga Zubko  
olga.zubko@kcl.ac.uk

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Dr Olga Zubko

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## Additional identifiers

**Protocol serial number**  
14866; 11/47/01

## Study information

**Scientific Title**  
The MADE Trial: Minocycline in Alzheimer's Disease Efficacy trial

**Acronym**  
MADE

**Study objectives**  
The MADE Trial will examine the effects of two years of minocycline treatment on deterioration in cognitive function and activities of daily living in patients with early Alzheimer's disease assessed and managed within NHS Memory Services. If minocycline can be shown to have efficacy in the trial, this would rapidly pave the way for effectiveness trials and ultimately availability of a low cost and safe treatment for this common and devastating condition.

**Ethics approval required**  
Old ethics approval format

**Ethics approval(s)**

London South REC, ref: 13//EE/0063

## **Study design**

Randomised; Interventional; Design type: Treatment

## **Primary study design**

Interventional

## **Study type(s)**

Treatment

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

Topic: Dementias and Neurodegenerative Diseases Research Network; Subtopic: Dementia;  
Disease: Alzheimer's Disease

## **Interventions**

Drug Treatment. Participants will be allocated to one of three treatment arms:

1. Minocycline 400mg/day
2. Minocycline 200mg/day
3. Placebo

They will take the allocated treatment orally for a period of two years.

## **Intervention Type**

Drug

## **Phase**

Not Specified

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

Minocycline

## **Primary outcome(s)**

To determine whether minocycline is superior to placebo; Timepoint(s): Baseline and 2 years

1. Cognition will be measured using sMMSE
2. Functional ability will be measured using Bristol Activities of Daily Living Scale (BADLS)

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

Not provided at time of registration

## **Completion date**

31/05/2018

# **Eligibility**

## **Key inclusion criteria**

1. Diagnosis by National Institute on Aging (NIA)/ Alzheimer's Association (AA) criteria of possible or probable Alzheimer's Disease (McKhann et al 2011)
2. Standardized Mini-Mental State Examination (SMMSE) score >23 with no upper limit

### 3. Consenting to participate

Target Gender: Male & Female; Upper Age Limit 100 no age limit or unit specified ; Lower Age Limit 45 no age limit or unit specified

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

Patient

#### **Healthy volunteers allowed**

No

#### **Age group**

Senior

#### **Sex**

All

#### **Total final enrolment**

544

#### **Key exclusion criteria**

1. Known allergy to tetracycline antibiotics
2. Diagnosis of mild cognitive impairment
3. Female of childbearing potential. Patients must be surgically sterile (hysterectomy, bilateral salpingectomy/oophorectomy) for at least 6 months minimum or have undergone bilateral tubal occlusion/ligation at least 6 months prior or have been post-menopausal for at least 1 year.
4. Pregnancy and lactation.
5. Known chronic kidney disease stages 3-5
6. Lacks capacity to give informed consent
7. Abnormal serum chemistry laboratory value at Screening deemed to be clinically relevant by the investigator. Patients with creatinine clearance < 50 mL/min at Screening, according to the Cockcroft and Gault equation must be excluded.
8. Systemic Lupus Erythromatosis
9. Severe liver disease
10. Participation in another Clinical Trial of an Investigational Medicinal Product (IMP) in the previous 28 days

Contraindications, warnings and special precautions to minocycline use are not described further in the protocol and the investigator should refer to the Summary of Product Characteristics <http://emc.medicines.org.uk/>.

#### **Date of first enrolment**

01/06/2013

#### **Date of final enrolment**

31/05/2018

## **Locations**

#### **Countries of recruitment**

United Kingdom

England

**Study participating centre**  
16 De Crespigny Park  
London  
United Kingdom  
SE5 8AF

## Sponsor information

**Organisation**  
King's College London (UK)

**ROR**  
<https://ror.org/0220mzb33>

## Funder(s)

**Funder type**  
Government

**Funder Name**  
Medical Research Council

**Alternative Name(s)**  
Medical Research Council (United Kingdom), UK Medical Research Council, Medical Research Committee and Advisory Council, MRC

**Funding Body Type**  
Government organisation

**Funding Body Subtype**  
National government

**Location**  
United Kingdom

**Funder Name**  
Efficacy and Mechanism Evaluation Programme; Grant Codes: 11/47/01

**Alternative Name(s)**

NIHR Efficacy and Mechanism Evaluation Programme, Efficacy and Mechanism Evaluation (EME), EME

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**

United Kingdom

## Results and Publications

**Individual participant data (IPD) sharing plan****IPD sharing plan summary****Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	01/02/2020	19/11/2019	Yes	No