

# **Efficacy and Safety of Memantine Hydrochloride, a low affinity antagonist to N-Methyl-D-Aspartate (NMDA) type receptors, in the prevention of cognitive decline and disease progression in older people with Down's syndrome, with and without dementia**

<b>Submission date</b> 28/02/2005	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 16/05/2005	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 23/02/2012	<b>Condition category</b> Nervous System Diseases	<input type="checkbox"/> Individual participant data

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

## **Contact information**

**Type(s)**  
Scientific

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## **Additional identifiers**

**EudraCT/CTIS number**

2005-000381-39

**IRAS number**

**ClinicalTrials.gov number**

NCT00240760

**Secondary identifying numbers**

KCL/DS/MEM/1

## Study information

**Scientific Title**

**Acronym**

MEADOWS study

**Study objectives**

This is a prospective, fifty-two week, multicentre, randomised, double-blind, placebo-controlled parallel group clinical trial in people with Down's syndrome, age over 40 and people with Down's syndrome and/or dementia. The study is designed to evaluate the efficacy, safety and tolerability of memantine in this population.

**Primary Aims:**

1. Clinical: To determine the clinical efficacy of memantine versus placebo in preventing cognitive decline in people with Down's syndrome (DS). To compare the safety and tolerability of memantine versus placebo in people with Down's syndrome (DS).
2. Biochemical and pathological: To examine the ability of memantine to alter markers of disease progression in DS patients.

**Secondary Aims:**

1. Clinical: To determine whether memantine has, as compared with placebo, a significant positive impact on: the independent functioning level as measured by the carer-rated adaptive behavioural scale, (ABS) in adults with Down's syndrome suffering from dementia, quality of life in adults with Down's syndrome suffering from dementia.
2. Biochemical and pathological: To investigate putative markers of memantine's mechanism of action in peripheral samples from living patients with DS.

**Ethics approval required**

Old ethics approval format

**Ethics approval(s)**

Not provided at time of registration

**Study design**

Randomised controlled trial

**Primary study design**

Interventional

**Secondary study design**

Randomised controlled trial

**Study setting(s)**

Not specified

**Study type(s)**

Not Specified

**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**

Cognitive decline and dementia in Down's syndrome

**Interventions**

Randomized, double blind, placebo controlled trial of Memantine versus placebo to assess the safety and efficacy of Memantine in preventing cognitive decline in adults with Down syndrome; effect of memantine on key progression disease markers of Alzheimer's disease in Down's syndrome.

**Intervention Type**

Drug

**Phase**

Not Specified

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

memantine

**Primary outcome measure**

Comparing Memantine to placebo. Changes in performance from baseline on a neuropsychological battery of tests for people with DS focussing upon 3 cognitive areas: attention, memory and executive function (the DAME, battery).

**Secondary outcome measures**

Comparing Memantine to placebo:

1. Incidence of dementia (International Statistical Classification of Diseases and Related Health Problems - tenth revision [ICD-10] criteria)
2. Changes in performance from baseline on the Adaptive Behavioural Scale (ABS)
3. Changes in performance from baseline on quality of life (QOL-AD)
4. Changes in performance from baseline on Clinical Global Impression of Change
5. Changes in key biomarkers

**Overall study start date**

01/07/2005

**Completion date**

31/07/2006

## Eligibility

### Key inclusion criteria

People with Down's syndrome over the age of 40 and/or dementia

### Participant type(s)

Patient

### Age group

Adult

### Sex

Not Specified

### Target number of participants

180

### Key exclusion criteria

Not provided at time of registration

### Date of first enrolment

01/07/2005

### Date of final enrolment

31/07/2006

## Locations

### Countries of recruitment

England

United Kingdom

### Study participating centre

King's College London

London

United Kingdom

SE1 1UL

## Sponsor information

### Organisation

King's College London (UK)

### Sponsor details

Prof Sir Graeme Catto  
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### Sponsor type

Not defined

### ROR

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

## Funder(s)

### Funder type

Industry

### Funder Name

Lundbeck

## 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?
<a href="#">Results article</a>	results	11/02/2012		Yes	No