# A Randomized, Double-blind, Placebocontrolled, Parallel-Group, Dose-Ranging Study to Investigate the MRI Efficacy and Safety of Six Months\* administration of Ofatumumab in Subjects with Relapsing-Remitting Multiple Sclerosis (RRMS) (OMS112831)

Published: 26-09-2011 Last updated: 01-05-2024

Primary: To determine whether of atumumab 3, 30 or 60 milligrams (mg) given subcutaneously (SQ), reduces the cumulative number of new T1 GdE brain lesions over a period of 12 weeks, as compared with placebo. Secondary: Cumulative number of new T1 GdE...

Ethical reviewApproved WMOStatusRecruitment stoppedHealth condition typeDemyelinating disorders

Study type Interventional

### **Summary**

#### ID

NL-OMON39973

#### Source

ToetsingOnline

#### **Brief title**

OMS112831 (MIRROR)

#### Condition

Demyelinating disorders

#### **Synonym**

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MS, mutiple sclerosis

### **Research involving**

Human

### **Sponsors and support**

Primary sponsor: GlaxoSmithKline

**Source(s) of monetary or material Support:** GlaxoSmithKline BV

### Intervention

**Keyword:** MRI, Multiple sclerosis, ofatumumab, relapsing remitting

#### **Outcome measures**

### **Primary outcome**

Cumulative number of new T1 GdE brain lesions over 12 weeks.

### **Secondary outcome**

Cumulative number of new T1 GdE brain lesions over 24 weeks, safety and tolerability, preliminary assessment of effect on relapses, extent of B-cell depletion, immunogenicity.

# **Study description**

### **Background summary**

Ofatumumab is a novel monoclonal antibody that specifically binds to the human CD20 antigen of which expression is restricted to B lymphocytes from the pre-B cell stage to the plasmacytoid immunoblast stage only. A recent trial with rituximab demonstrated that targeting B-cells reduces the number of gadolinium-enhancing T1 lesions and the relapse rate in Relapsing-Remitting Multiple Sclerosis (RRMS).

Ofatumumab is marketed under the trade name Arzerra for the intravenous treatment of chronic lymphocytic leukemia in patients refractory to fludarabine and alemtuzumab.

A Phase II study of ofatumumab in RRMS subjects is ongoing. The primary objective of this study was to investigate the safety of a range of doses (100mg, 300 mg, and 700 mg) of ofatumumab in RRMS subjects, using an IV formulation. The treatment period has been completed; there are currently 4

subjects ongoing in the Follow up Phase. In the Week 0 to 24 period the majority of subject who were exposed to active treatment with ofatumumab (active/placebo) had CD19+ and CD20+ levels that were suppressed to zero; recovery started for the 100 mg and 300 mg active/placebo groups, at approximately, 12 and 20 weeks after discontinuation of dosing with ofatumumab, respectively. In the 700 mg active/placebo group, all but one subject had a persistent and complete CD19+ suppression at Week 24. In the Week 24 to 48 period, when those who had previously been exposed to placebo were treated with ofatumumab (placebo/active), the majority of the subjects' CD19+ and CD20+ levels were suppressed to zero (mm3) within one week. Recovery started for the subjects in the 100 mg placebo/active group after approximately 16 weeks (from these subjects\* first infusion). In the 300 mg and 700 mg placebo/active groups, all subjects except one (700 mg) had persistent and complete CD19+ suppression at Week 48.

The present study will evaluate the MRI efficacy in subjects with RRMS, as well as continue to investigate the safety, of ofatumumab using a subcutaneous formulation.

### **Study objective**

Primary: To determine whether of atumumab 3, 30 or 60 milligrams (mg) given subcutaneously (SQ), reduces the cumulative number of new T1 GdE brain lesions over a period of 12 weeks, as compared with placebo.

Secondary: Cumulative number of new T1 GdE brain lesions over 24 weeks, safety and tolerability, preliminary assessment of effect on relapses, extent of B-cell depletion, immunogenicity.

### Study design

Multicenter randomized double blind phase II dose ranging parallel group study. Screening 6 weeks, treatment phase 24 weeks, follow-up 24 weeks.

Randomization naar behandeling met:

- \* Ofatumumab 3 mg s.c. every 12 weeks
- \* Ofatumumab 30 mg s.c. every 12 weeks
- \* Ofatumumab 60 mg s.c. every 12 weeks
- \* Ofatumumab 60 mg s.c. every 4 weeks
- \* Placebo and 12 weeks thereafter of a tumumab 3 mg s.c. .

1 week prior to start of the treatment phase start dose with ofatumumab 3 mg s.c. or placebo.

Study duration 54 weeks.

Upon completion or withdrawal from the core study period, subjects whose CD19+B-cell counts are less than the lower limit of normal or baseline will be followed in the Individualized Follow-up Phase until recovery of the count.

The Netherlands will not participate in the sub-studies.

Approx. 196 patients (245 to be screened).

#### Intervention

Treatment with ofatumumab or placebo.

### Study burden and risks

Risk: Adverse effects of study medication.

Burden: Study duration 54 weeks, possibly plus individualized follow-up

thereafter.

During the 54 weeks:

12-13 visits. Duration 2-8 h.

S.c. injections (1 mL) with study drug or placebo every 4 weeks during the treatment phase (plus 1 week after start treatment), 7x in total..

Blood draws: approx. 45 mL per occasion, every visit. Optional pharmacogenetic testing (10 mL blood).

Pregnancy test 12x.

ECG 1x.

Some short tests to assess arm, hand and leg function 10x.

MRI brain (with gadolinium) 9x.

Questionnaires (2) 14x (1 should be answered by telephone). Mental status and fatigue. Duration 5-10 min.

Individualized follow-up:

Visit every 12 weeks.

Blood draws and questionnaires every visit.

## **Contacts**

#### **Public**

GlaxoSmithKline

Huis ter Heideweg 62 Zeist 3705 LZ NL

**Scientific** 

GlaxoSmithKline

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### **Trial sites**

### **Listed location countries**

**Netherlands** 

# **Eligibility criteria**

#### Age

Adults (18-64 years) Elderly (65 years and older)

### Inclusion criteria

- \* Males and females 18-55 years of age.
- \* Definite diagnosis of MS according to the 2010 revisions of the McDonald diagnostic criteria for MS.
- \* No manifestation of another type of MS other than RRMS.
- \* Relapsing-remitting course of disease with at least one of the following prior to screening:
- A. At least one confirmed relapse within the previous year or
- B. At least two confirmed relapses within the previous 2 years or
- C. At least one relapse in the previous 2 years, with a GdE brain lesion on an MRI scan in the past year.
- \* EDSS score of 0-5.5 (inclusive) at screening.
- \* Neurologically stable with no evidence of relapse for at least 30 days.
- \* Safe contraception for women of childbearing potential.

### **Exclusion criteria**

- \* Unable to undergo MRI scans.
- \* Any clinically significant brain abnormality other than MS found on MRI.
- \* Neurological findings consistent with PML or confirmed PML.
- \* Relapse during screening.
- \* Prior treatment with any of the following:
- A. Systemic glucocorticoids or ACTH within one month prior to screening
- B. Receipt of a live vaccine within 6 weeks prior to screening
- C. Glatiramer acetate or IFN-\* within 3 months prior to screening
- D. Any immunomodulatory therapies, excluding glatiramer acetate or IFN-\*, within 6 months prior to screening
- E. Any monoclonal antibodies at any time, other than natalizumab
- F. Any lymphocyte-depleting therapies
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- G. Any immunosuppressive agents
- \* Chronic or ongoing active infectious disease requiring long term systemic treatment.
- \* Previous serious opportunistic or atypical infections.
- \* Positive polymerase chain reaction (PCR) screening for JC Virus.
- \* Positive serology for Hepatitis B.
- \* Prior history, or suspicion, of TB
- \* Known history of positive serology for HIV.

# Study design

### **Design**

Study phase: 2

Study type: Interventional

Intervention model: Parallel

Allocation: Randomized controlled trial

Masking: Double blinded (masking used)

Control: Placebo

Primary purpose: Treatment

### Recruitment

NL

Recruitment status: Recruitment stopped

Start date (anticipated): 11-01-2012

Enrollment: 8

Type: Actual

### Medical products/devices used

Product type: Medicine

Brand name: ofatumumab

Generic name: ofatumumab

Registration: Yes - NL outside intended use

### **Ethics review**

Approved WMO

Date: 26-09-2011

Application type: First submission

Review commission: METC Leiden-Den Haag-Delft (Leiden)

metc-ldd@lumc.nl

Approved WMO

Date: 23-11-2011

Application type: First submission

Review commission: METC Leiden-Den Haag-Delft (Leiden)

metc-ldd@lumc.nl

Approved WMO

Date: 13-12-2011

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

metc-ldd@lumc.nl

Approved WMO

Date: 30-03-2012

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

metc-ldd@lumc.nl

Approved WMO

Date: 24-04-2012

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

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Approved WMO

Date: 10-05-2012

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

metc-ldd@lumc.nl

Approved WMO

Date: 06-07-2012

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

metc-ldd@lumc.nl

Approved WMO

Date: 02-08-2012

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

metc-ldd@lumc.nl

Approved WMO

Date: 07-08-2012

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

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Approved WMO

Date: 15-10-2012

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

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Approved WMO

Date: 16-10-2012

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

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Approved WMO

Date: 16-04-2013

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

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Approved WMO

Date: 08-05-2013
Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

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Approved WMO

Date: 30-04-2014
Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

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Approved WMO

Date: 15-05-2014

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

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Approved WMO

Date: 09-01-2015

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

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Approved WMO

Date: 13-01-2015

Application type: Amendment

Review commission: METC Leiden-Den Haag-Delft (Leiden)

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# **Study registrations**

# Followed up by the following (possibly more current) registration

No registrations found.

## Other (possibly less up-to-date) registrations in this register

No registrations found.

### In other registers

Register ID

Other clinicaltrials.gov

EudraCT EUCTR2011 002333 19-NL

CCMO NL38224.098.11