

# Comparison of Alemtuzumab and Rebif® Efficacy in Multiple Sclerosis, Study One

<b>Submission date</b> 18/02/2008	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 11/03/2009	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 20/03/2020	<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**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

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## Additional identifiers

**ClinicalTrials.gov (NCT)**  
NCT00530348

**Clinical Trials Information System (CTIS)**  
2007-001161-14

**Protocol serial number**

## Study information

### Scientific Title

A phase 3 randomised, rater-blinded study comparing two annual cycles of intravenous alemtuzumab to three-times weekly subcutaneous interferon beta-1a (Rebif®) in treatment-naïve patients with relapsing-remitting multiple sclerosis

### Acronym

CARE-MS I

### Study objectives

Current hypothesis as of 22/06/2009:

The purpose of this study is to establish the efficacy and safety of alemtuzumab as a treatment for relapsing-remitting multiple sclerosis (MS), in comparison with Rebif® (interferon beta-1a). The study will enrol patients who have not previously received treatment to suppress MS, except steroids. Patients will have monthly laboratory tests and comprehensive testing every 3 months. Every patient will receive active treatment; there is no placebo. Patients who qualify will be randomly assigned to treatment with either alemtuzumab or Rebif® at a 2:1 ratio (i.e., 2 given alemtuzumab for every 1 given Rebif®). Alemtuzumab will be administered in two annual cycles, once at the beginning of the study and again 1 year later. Rebif® will be self-injected 3 times per week for 2 years. All patients will be required to return to their study site every 3 months for neurologic assessment. In addition, safety-related laboratory tests will be performed at least monthly. Participation in this study will end 2 years after the start of treatment for each patient. Additionally, all patients who receive alemtuzumab will be followed in an extension study for safety and efficacy assessments. Patients who receive Rebif® and complete 2 years on study may be eligible to receive alemtuzumab in an extension study.

Initial information at time of registration:

The purpose of this study is to establish the efficacy and safety of alemtuzumab as a treatment for relapsing-remitting multiple sclerosis (MS), in comparison with Rebif® (interferon beta-1a). The study will enrol patients who have not previously received treatment to suppress MS, except steroids. Patients will have monthly blood tests and comprehensive testing every 3 months. Every patient will receive active treatment; there is no placebo. Patients who qualify will be randomly assigned to treatment with either alemtuzumab or Rebif® at a 2:1 ratio (i.e., 2 given alemtuzumab for every 1 given Rebif®). Alemtuzumab will be administered in two annual cycles, once at the beginning of the study and again 1 year later. Rebif® will be self-injected 3 times per week for 2 years. All patients will be required to return to their study site every 3 months for neurologic assessment. In addition, a safety-related blood test will be performed at least monthly. Participation in this study will end 2 years after the start of treatment for each patient. Additionally, all patients who receive alemtuzumab will be followed in an extension study for safety for at least 3 years after their last dose of alemtuzumab. Patients who receive Rebif® and complete 2 years on study may be eligible to receive alemtuzumab in an extension study.

### Ethics approval required

Old ethics approval format

### Ethics approval(s)

Nottingham Research Ethics Committee (UK), 09/11/2007, ref: 07/H0408/118.  
All other centres will seek ethics approval before recruiting patients.

### **Study design**

Randomised parallel-assignment single-blind (outcome assessor) multi-centre trial

### **Primary study design**

Interventional

### **Study type(s)**

Treatment

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

Multiple sclerosis

### **Interventions**

Experimental Intervention: alemtuzumab: 12 mg per day administered through IV, once a day for 5 consecutive days at Month 0 and 12 mg per day administered through IV, once a day for 3 consecutive days at Month 12

Active Comparator: interferon beta-1a (Rebif®): 44 mcg administered 3-times weekly by SC injections for 2 years

Details of Lead Principal Investigator for UK sites:

Dr Alasdair Coles  
Addenbrooke's Hospital  
Box 165  
Hill's Road  
Cambridge, CB2 2QQ  
United Kingdom

### **Intervention Type**

Drug

### **Phase**

Phase III

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

Alemtuzumab, interferon beta-1a (Rebif®)

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

1. Time to Sustained Accumulation of Disability (SAD) (Time frame: 2 years)
2. Relapse rate (Time frame: 2 years)

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

1. Proportion of patients who are relapse free at Year 2 (Time frame: 2 years)
2. Change from baseline in EDSS (Time frame: 2 years)
3. Acquisition of disability as measured by change from baseline in Multiple Sclerosis Functional Composite (MSFC) (Time frame: 2 years)
4. Percent change from baseline in MRI-T2 hyperintense lesion volume at Year 2 (Time frame: 2 years)

**Completion date**

01/03/2011

## Eligibility

**Key inclusion criteria**

Amended as of 22/06/2009:

Point 6 below has been removed from the inclusion criteria.

Initial information at time of registration:

1. Males and females, aged 18 - 50 years
2. Diagnosis of multiple sclerosis (MS) and cranial magnetic resonance imaging (MRI) scan demonstrating white matter lesions attributable to MS within 5 years
3. Onset of MS symptoms within 5 years of screening
4. Expanded Disability Status Scale (EDSS) score 0.0 to 3.0
5. Greater than or equal to 2 MS attacks within 24 months, with greater than or equal to 1 attack within 12 months
6. Neurologically stable for the 30 days prior to the date the Informed Consent Form is signed

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Lower age limit**

18 years

**Sex**

All

**Key exclusion criteria**

1. Received prior therapy for MS other than corticosteroids
2. Exposure to immunosuppressive or immunomodulatory agents other than systemic corticosteroid treatment
3. Received treatment with a monoclonal antibody for any reason
4. Previous treatment with any investigational drug (i.e. medication that is not approved at any dose for any indication)
5. Has any progressive form of MS
6. Any disability acquired from trauma or another illness that could interfere with evaluation of disability due to MS
7. Major systemic disease that cannot be treated or adequately controlled by therapy
8. Active infection or high risk for infection
9. Autoimmune disorder (other than MS)
10. Impaired hepatic or renal function
11. History of malignancy, except basal skin cell carcinoma
12. Medical, psychiatric, cognitive, or other conditions that compromise the patient's ability to

understand the patient information, to give informed consent, to comply with the trial protocol, or to complete the study

13. Known bleeding disorder

14. Of childbearing potential with a positive serum pregnancy test, pregnant, or lactating

15. Current participation in another clinical study

16. Previous hypersensitivity reaction to any immunoglobulin product

17. Known allergy or intolerance to interferon beta, human albumin, or mannitol

18. Intolerance of pulsed corticosteroids, especially a history of steroid psychosis

19. Inability to self-administer subcutaneous (SC) injections or receive SC injections from caregiver

20. Inability to undergo MRI with gadolinium administration

21. Unwilling to use a reliable and acceptable contraceptive method throughout the study period (fertile patients only)

**Date of first enrolment**

07/09/2007

**Date of final enrolment**

02/09/2009

## **Locations**

**Countries of recruitment**

United Kingdom

England

Argentina

Australia

Brazil

Canada

Croatia

Czech Republic

France

Germany

Mexico

Poland

Russian Federation

Serbia

Sweden

Ukraine

United States of America

**Study participating centre**

**Genzyme Therapeutics**

Oxford

United Kingdom

OX4 2SU

## Sponsor information

**Organisation**

Genzyme Corporation (USA)

**ROR**

<https://ror.org/027vj4x92>

## Funder(s)

**Funder type**

Industry

**Funder Name**

Genzyme

**Alternative Name(s)**

Genzyme Corporation

**Funding Body Type**

Private sector organisation

**Funding Body Subtype**

For-profit companies (industry)

**Location**

United States of America

**Funder Name**

Bayer Schering

**Alternative Name(s)****Funding Body Type**

Private sector organisation

**Funding Body Subtype**

For-profit companies (industry)

**Location**

Germany

## 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	24/11/2012		Yes	No
<a href="#">Basic results</a>				No	No