

# Rehabilitation of functional muscle and motor capacity in neurodegenerative disease: Multiple Sclerosis research

<b>Submission date</b> 19/08/2009	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered
<b>Registration date</b> 01/10/2009	<b>Overall study status</b> Completed	<input type="checkbox"/> Protocol
<b>Last Edited</b> 01/10/2009	<b>Condition category</b> Nervous System Diseases	<input type="checkbox"/> Statistical analysis plan
		<input type="checkbox"/> Results
		<input type="checkbox"/> Individual participant data
		<input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

Not provided at time of registration

## Contact information

### Type(s)

Scientific

### Contact name

Prof Bert Eijnde

### Contact details

Guffenslaan 39  
Hasselt  
Belgium  
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## Additional identifiers

### Protocol serial number

050078 IWT TETRA

## Study information

### Scientific Title

Rehabilitation of functional muscle and motor capacity in neurodegenerative disease: a single centre placebo-controlled Multiple Sclerosis research trial

### Acronym

MS rehabilitation

### **Study objectives**

Regular and moderately intense rehabilitation of muscle strength improves functional capacity in multiple sclerosis (MS) patients.

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

Ethics Board of Hasselt University approved on the 24th October 2005 (ref: CME 2005/233)

### **Study design**

Single centre placebo-controlled clinical research trial

### **Primary study design**

Interventional

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

Treatment

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

Multiple sclerosis

### **Interventions**

Patients will be subjected to different rehabilitation modes during a period of 24 weeks and according to a specific treatment protocol:

1. Control
2. Strength training
3. Strength training and electro-stimulation
4. Whole body vibration
5. Micro-electrotherapy

At baseline and following 12 and 24 weeks of therapy all endpoints will be measured.

### **Intervention Type**

Other

### **Phase**

Not Applicable

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

Measured at baseline, mid- (after 10 weeks intervention) and post-treatment (after 20 weeks of intervention):

1. Maximal isometric muscle strength of knee-extensors and flexors
2. Isotonic and isokinetic dynamic muscle strength using an isokinetic dynamometer
3. Functional performances
4. Blood samples
5. Motor control (surface electromyography [sEMG], in-phase and anti-phase motor coordination test equipment)
6. Quality of life (specific questionnaire) assessment

**Key secondary outcome(s)**

1. Visual Analogue Scale (VAS) measured before and after each training session
2. Borg Scale measured after each training session

**Completion date**

01/12/2007

**Eligibility****Key inclusion criteria**

1. MS patients (Expanded Standard Disability Status Scale [EDSS] 0.5 - 3) that have functional muscle and motor functional disabilities
2. Males and females aged 20 - 65 years
3. 24-week availability

**Participant type(s)**

Patient

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Key exclusion criteria**

1. Any pathology that is a contra-indication for rehabilitation training
2. Wheelchair dependency
3. No present physiotherapy (preferably)

**Date of first enrolment**

01/11/2005

**Date of final enrolment**

01/12/2007

**Locations****Countries of recruitment**

Belgium

**Study participating centre**

**Guffenslaan 39**  
Hasselt  
Belgium  
B-3500

## **Sponsor information**

### **Organisation**

IWT Vlaanderen (Instituut voor de aanmoediging van Innovatie door Wetenschap en Technologie in Vlaanderen) (Belgium)

### **ROR**

<https://ror.org/032xdry56>

## **Funder(s)**

### **Funder type**

Research organisation

### **Funder Name**

IWT Vlaanderen (Instituut voor de aanmoediging van Innovatie door Wetenschap en Technologie in Vlaanderen) (Belgium) (ref: 050078)

## **Results and Publications**

### **Individual participant data (IPD) sharing plan**

### **IPD sharing plan summary**

Not provided at time of registration