

Trial record **1 of 1** for: CENA713DDE18
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## Rivastigmine in Multiple Sclerosis Patients With Cognitive Impairment (EXCITING)

**This study has been terminated.**

*(Termination of study due to low enrollment)*

**Sponsor:**

Novartis Pharmaceuticals

**Information provided by (Responsible Party):**

Novartis ( Novartis Pharmaceuticals )

**ClinicalTrials.gov Identifier:**

NCT00881205

First received: April 14, 2009

Last updated: March 8, 2012

Last verified: March 2012

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Results First Received: January 20, 2012

|                       |  |
|-----------------------|--|
| <b>Study Type:</b>    | Interventional   |
| <b>Study Design:</b>  | Allocation: Randomized; Intervention Model: Parallel Assignment;<br>Masking: Double Blind (Subject, Caregiver, Investigator, Outcomes Assessor);<br>Primary Purpose: Treatment |
| <b>Conditions:</b>    | Multiple Sclerosis<br>Cognitive Impairment   |
| <b>Interventions:</b> | Drug: Rivastigmine transdermal patch<br>Drug: Placebo  |

## Participant Flow

 Hide Participant Flow

### Recruitment Details

Key information relevant to the recruitment process for the overall study, such as dates of the recruitment period and locations

No text entered.

### Pre-Assignment Details

Significant events and approaches for the overall study following participant enrollment, but prior to group assignment

No text entered.

### Reporting Groups

|              | Description  |
|--------------|--|
| Rivastigmine | 5 and 10 cm <sup>2</sup> patch sizes (4,6mg/24h or 9,5mg/24h) of rivastigmine, |
| Placebo      | Matching the size, shape and color of rivastigmine patches.                    |

### Participant Flow: Overall Study

|                                   | Rivastigmine | Placebo   |
|-----------------------------------|--------------|-----------|
| <b>STARTED</b>                    | <b>45</b>    | <b>41</b> |
| <b>COMPLETED</b>                  | <b>34</b>    | <b>34</b> |
| <b>NOT COMPLETED</b>              | <b>11</b>    | <b>7</b>  |
| Adverse Event                     | 8            | 3         |
| Withdrawal by Subject             | 1            | 2         |
| Lost to Follow-up                 | 0            | 1         |
| Administrative problems           | 1            | 1         |
| Condition no longer requires drug | 1            | 0         |

## ▶ Baseline Characteristics

▢ Hide Baseline Characteristics

### Population Description

Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.

No text entered.

### Reporting Groups

|                     | Description  |
|---------------------|--|
| <b>Rivastigmine</b> | 5 and 10 cm <sup>2</sup> patch sizes (4,6mg/24h or 9,5mg/24h) of rivastigmine, |
| <b>Placebo</b>      | Matching the size, shape and color of rivastigmine patches.                    |
| <b>Total</b>        | Total of all reporting groups  |

### Baseline Measures

|   | Rivastigmine      | Placebo           | Total             |
|---|-------------------|-------------------|-------------------|
| <b>Number of Participants</b><br>[units: participants]    | <b>43</b>         | <b>38</b>         | <b>81</b>         |
| <b>Age</b><br>[units: years]<br>Mean (Standard Deviation) | <b>44.6 (9.4)</b> | <b>44.0 (7.3)</b> | <b>44.3 (8.5)</b> |
| <b>Gender</b><br>[units: participants]                    |                   |                   |                   |
| <b>Female</b>   | <b>23</b>         | <b>20</b>         | <b>43</b>         |
| <b>Male</b>   | <b>20</b>         | <b>18</b>         | <b>38</b>         |

## ▶ Outcome Measures

1. Primary: Change From Baseline to Week 16 in Total Recall on the Selective Reminding Test (SRT) in the Intent to Treat (ITT) Population [ Time Frame: After 16 weeks of treatment ]

 Hide Outcome Measure 1

|                            |   |
|----------------------------|---|
| <b>Measure Type</b>        | Primary   |
| <b>Measure Title</b>       | Change From Baseline to Week 16 in Total Recall on the Selective Reminding Test (SRT) in the Intent to Treat (ITT) Population   |
| <b>Measure Description</b> | The Selective Reminding Test(SRT) is a test to assess verbal learning and memory. During the administration of the SRT only the examiner and the patient should be in the testing room. A list of twelve words is read aloud by the examiner at a rate of one word per two seconds. The patient is asked to recall all twelve words. Only the words that are missed on the preceding trial are given in the consecutive trial. The total score represents a sum score of 6 trials, therefore the range is from 0-72. The lower the value the worse the outcome. |
| <b>Time Frame</b>          | After 16 weeks of treatment   |
| <b>Safety Issue</b>        | No  |

#### Population Description

**Explanation of how the number of participants for analysis was determined. Includes whether analysis was per protocol, intention to treat, or another method. Also provides relevant details such as imputation technique, as appropriate.**

Due to low enrollment numbers study did not achieve the anticipated 80% power.

#### Reporting Groups

|                     | Description  |
|---------------------|--|
| <b>Rivastigmine</b> | 5 and 10 cm <sup>2</sup> patch sizes (4,6mg/24h or 9,5mg/24h) of rivastigmine, |
| <b>Placebo</b>      | Matching the size, shape and color of rivastigmine patches.                    |

#### Measured Values

|  | Rivastigmine | Placebo |
|--|--------------|---------|
| <b>Number of Participants Analyzed</b><br>[units: participants]  | 0            | 0       |
| <b>Change From Baseline to Week 16 in Total Recall on the Selective Reminding Test (SRT) in the Intent to Treat (ITT) Population</b> |              |         |

[units: units on a scale]  
 Mean (Standard Deviation)

No statistical analysis provided for Change From Baseline to Week 16 in Total Recall on the Selective Reminding Test (SRT) in the Intent to Treat (ITT) Population

## ▶ Serious Adverse Events

▢ Hide Serious Adverse Events

|                               |   |
|-------------------------------|---|
| <b>Time Frame</b>             | No text entered.  |
| <b>Additional Description</b> | The safety population will consist of all patients that received at least one dose of study drug and had at least one post-baseline safety assessment. Patients will be analyzed according to treatment received. |

## Reporting Groups

|                       | Description   |
|-----------------------|---|
| <b>Total Patients</b> | Total Patients  |
| <b>Rivastigmine</b>   | Rivastigmine patch arm with the application of one 5 cm <sup>2</sup> patch, followed by an increase to the target dose of 10 cm <sup>2</sup> patch size |
| <b>Placebo</b>        | Placebo patch arm with the application of one 5 cm <sup>2</sup> patch, followed by an increase to the target dose of 10 cm <sup>2</sup> patch size      |

## Serious Adverse Events

|  | Total Patients      | Rivastigmine        | Placebo             |
|--|---------------------|---------------------|---------------------|
| <b>Total, serious adverse events</b>     |                     |                     |                     |
| <b># participants affected / at risk</b> | <b>6/86 (6.98%)</b> | <b>2/45 (4.44%)</b> | <b>4/41 (9.76%)</b> |
| <b>Gastrointestinal disorders</b>        |                     |                     |                     |
| <b>NAUSEA †1</b>                         |                     |                     |                     |
| <b># participants affected / at risk</b> | <b>1/86 (1.16%)</b> | <b>0/45 (0.00%)</b> | <b>1/41 (2.44%)</b> |
| <b>General disorders</b>                 |                     |                     |                     |

|  |                     |                     |                     |
|--|---------------------|---------------------|---------------------|
| <b>OEDEMA PERIPHERAL †<sup>1</sup></b>   |                     |                     |                     |
| <b># participants affected / at risk</b> | <b>1/86 (1.16%)</b> | <b>0/45 (0.00%)</b> | <b>1/41 (2.44%)</b> |
| <b>PYREXIA †<sup>1</sup></b>             |                     |                     |                     |
| <b># participants affected / at risk</b> | <b>1/86 (1.16%)</b> | <b>0/45 (0.00%)</b> | <b>1/41 (2.44%)</b> |
| <b>Infections and infestations</b>       |                     |                     |                     |
| <b>CELLULITIS †<sup>1</sup></b>          |                     |                     |                     |
| <b># participants affected / at risk</b> | <b>1/86 (1.16%)</b> | <b>1/45 (2.22%)</b> | <b>0/41 (0.00%)</b> |
| <b>PYELONEPHRITIS †<sup>1</sup></b>      |                     |                     |                     |
| <b># participants affected / at risk</b> | <b>1/86 (1.16%)</b> | <b>1/45 (2.22%)</b> | <b>0/41 (0.00%)</b> |
| <b>SEPSIS †<sup>1</sup></b>              |                     |                     |                     |
| <b># participants affected / at risk</b> | <b>1/86 (1.16%)</b> | <b>1/45 (2.22%)</b> | <b>0/41 (0.00%)</b> |
| <b>Nervous system disorders</b>          |                     |                     |                     |
| <b>DIZZINESS †<sup>1</sup></b>           |                     |                     |                     |
| <b># participants affected / at risk</b> | <b>1/86 (1.16%)</b> | <b>0/45 (0.00%)</b> | <b>1/41 (2.44%)</b> |
| <b>OPTIC NEURITIS †<sup>1</sup></b>      |                     |                     |                     |
| <b># participants affected / at risk</b> | <b>1/86 (1.16%)</b> | <b>0/45 (0.00%)</b> | <b>1/41 (2.44%)</b> |
| <b>Psychiatric disorders</b>             |                     |                     |                     |
| <b>DEPRESSION †<sup>1</sup></b>          |                     |                     |                     |
| <b># participants affected / at risk</b> | <b>1/86 (1.16%)</b> | <b>0/45 (0.00%)</b> | <b>1/41 (2.44%)</b> |

† Events were collected by systematic assessment

<sup>1</sup> Term from vocabulary, MedDRA 14.0

## Other Adverse Events

 Hide Other Adverse Events

|                               |   |
|-------------------------------|---|
| <b>Time Frame</b>             | No text entered.  |
| <b>Additional Description</b> | The safety population will consist of all patients that received at least one dose of study drug and had at least one post-baseline |

safety assessment. Patients will be analyzed according to treatment received.

### Frequency Threshold

Threshold above which other adverse events are reported 3%

### Reporting Groups

|                       | Description   |
|-----------------------|---|
| <b>Total Patients</b> | Total Patients  |
| <b>Rivastigmine</b>   | Rivastigmine patch arm with the application of one 5 cm <sup>2</sup> patch, followed by an increase to the target dose of 10 cm <sup>2</sup> patch size |
| <b>Placebo</b>        | Placebo patch arm with the application of one 5 cm <sup>2</sup> patch, followed by an increase to the target dose of 10 cm <sup>2</sup> patch size      |

### Other Adverse Events

|  | Total Patients        | Rivastigmine          | Placebo               |
|--|-----------------------|-----------------------|-----------------------|
| <b>Total, other (not including serious) adverse events</b> |                       |                       |                       |
| <b># participants affected / at risk</b>                   | <b>48/86 (55.81%)</b> | <b>25/45 (55.56%)</b> | <b>23/41 (56.10%)</b> |
| <b>Ear and labyrinth disorders</b>                         |                       |                       |                       |
| <b>VERTIGO †1</b>  |                       |                       |                       |
| <b># participants affected / at risk</b>                   | <b>3/86 (3.49%)</b>   | <b>2/45 (4.44%)</b>   | <b>1/41 (2.44%)</b>   |
| <b>Gastrointestinal disorders</b>                          |                       |                       |                       |
| <b>DIARRHOEA †1</b>  |                       |                       |                       |
| <b># participants affected / at risk</b>                   | <b>3/86 (3.49%)</b>   | <b>1/45 (2.22%)</b>   | <b>2/41 (4.88%)</b>   |
| <b>NAUSEA †1</b>   |                       |                       |                       |
| <b># participants affected / at risk</b>                   | <b>6/86 (6.98%)</b>   | <b>2/45 (4.44%)</b>   | <b>4/41 (9.76%)</b>   |
| <b>VOMITING †1</b>   |                       |                       |                       |
| <b># participants affected / at risk</b>                   | <b>3/86 (3.49%)</b>   | <b>2/45 (4.44%)</b>   | <b>1/41 (2.44%)</b>   |
| <b>General disorders</b>                                   |                       |                       |                       |
| <b>CHILLS †1</b>   |                       |                       |                       |
| <b># participants affected / at risk</b>                   | <b>2/86 (2.33%)</b>   | <b>2/45 (4.44%)</b>   | <b>0/41 (0.00%)</b>   |

|  |                       |                      |                      |
|--|-----------------------|----------------------|----------------------|
| <b>INFLUENZA LIKE ILLNESS †1</b>                       |                       |                      |                      |
| <b># participants affected / at risk</b>               | <b>3/86 (3.49%)</b>   | <b>1/45 (2.22%)</b>  | <b>2/41 (4.88%)</b>  |
| <b>Infections and infestations</b>                     |                       |                      |                      |
| <b>NASOPHARYNGITIS †1</b>                              |                       |                      |                      |
| <b># participants affected / at risk</b>               | <b>7/86 (8.14%)</b>   | <b>6/45 (13.33%)</b> | <b>1/41 (2.44%)</b>  |
| <b>RESPIRATORY TRACT INFECTION †1</b>                  |                       |                      |                      |
| <b># participants affected / at risk</b>               | <b>2/86 (2.33%)</b>   | <b>0/45 (0.00%)</b>  | <b>2/41 (4.88%)</b>  |
| <b>Musculoskeletal and connective tissue disorders</b> |                       |                      |                      |
| <b>MUSCLE SPASMS †1</b>                                |                       |                      |                      |
| <b># participants affected / at risk</b>               | <b>2/86 (2.33%)</b>   | <b>2/45 (4.44%)</b>  | <b>0/41 (0.00%)</b>  |
| <b>Nervous system disorders</b>                        |                       |                      |                      |
| <b>DIZZINESS †1</b>                                    |                       |                      |                      |
| <b># participants affected / at risk</b>               | <b>2/86 (2.33%)</b>   | <b>0/45 (0.00%)</b>  | <b>2/41 (4.88%)</b>  |
| <b>MULTIPLE SCLEROSIS RELAPSE †1</b>                   |                       |                      |                      |
| <b># participants affected / at risk</b>               | <b>10/86 (11.63%)</b> | <b>4/45 (8.89%)</b>  | <b>6/41 (14.63%)</b> |
| <b>Psychiatric disorders</b>                           |                       |                      |                      |
| <b>DEPRESSION †1</b>                                   |                       |                      |                      |
| <b># participants affected / at risk</b>               | <b>5/86 (5.81%)</b>   | <b>1/45 (2.22%)</b>  | <b>4/41 (9.76%)</b>  |
| <b>Respiratory, thoracic and mediastinal disorders</b> |                       |                      |                      |
| <b>COUGH †1</b>  |                       |                      |                      |
| <b># participants affected / at risk</b>               | <b>3/86 (3.49%)</b>   | <b>1/45 (2.22%)</b>  | <b>2/41 (4.88%)</b>  |
| <b>Skin and subcutaneous tissue disorders</b>          |                       |                      |                      |
| <b>ERYTHEMA †1</b>                                     |                       |                      |                      |
| <b># participants affected / at risk</b>               | <b>13/86 (15.12%)</b> | <b>7/45 (15.56%)</b> | <b>6/41 (14.63%)</b> |
| <b>PRURITUS †1</b>                                     |                       |                      |                      |
| <b># participants affected / at risk</b>               | <b>3/86 (3.49%)</b>   | <b>2/45 (4.44%)</b>  | <b>1/41 (2.44%)</b>  |
| <b>RASH †1</b>   |                       |                      |                      |

|                                       |              |               |              |
|---------------------------------------|--------------|---------------|--------------|
| # participants affected / at risk     | 7/86 (8.14%) | 5/45 (11.11%) | 2/41 (4.88%) |
| <b>SKIN IRRITATION</b> † <sup>1</sup> |              |               |              |
| # participants affected / at risk     | 2/86 (2.33%) | 0/45 (0.00%)  | 2/41 (4.88%) |
| <b>SKIN REACTION</b> † <sup>1</sup>   |              |               |              |
| # participants affected / at risk     | 3/86 (3.49%) | 1/45 (2.22%)  | 2/41 (4.88%) |
| <b>Vascular disorders</b>             |              |               |              |
| <b>HYPERTENSION</b> † <sup>1</sup>    |              |               |              |
| # participants affected / at risk     | 3/86 (3.49%) | 2/45 (4.44%)  | 1/41 (2.44%) |

† Events were collected by systematic assessment

<sup>1</sup> Term from vocabulary, MedDRA 14.0

## ▶ Limitations and Caveats

▢ Hide Limitations and Caveats

**Limitations of the study, such as early termination leading to small numbers of participants analyzed and technical problems with measurement leading to unreliable or uninterpretable data**

This study was terminated early due to low recruitment numbers. This study did not have the anticipated 80% power.

## ▶ More Information

▢ Hide More Information

### Certain Agreements:

Principal Investigators are **NOT** employed by the organization sponsoring the study.

There **IS** an agreement between Principal Investigators and the Sponsor (or its agents) that restricts the PI's rights to discuss or publish trial results after the trial is completed.

The agreement is:

- The only disclosure restriction on the PI is that the sponsor can review results communications prior to public release and can embargo communications regarding trial results for a period that is **less than or equal to 60 days**. The sponsor cannot require changes to the communication and cannot extend the embargo.

The only disclosure restriction on the PI is that the sponsor can review results communications prior to public release and can embargo communications regarding trial results for a period that is **more than 60 days but less than or equal to 180 days**. The sponsor cannot require changes to the communication and cannot extend the embargo.

Other disclosure agreement that restricts the right of the PI to discuss or publish trial results after the trial is completed.

**Restriction Description:** The terms and conditions of Novartis' agreements with its investigators may vary. However, Novartis does not prohibit any investigator from publishing. Any publications from a single-site are postponed until the publication of the pooled data (i.e., data from all sites) in the clinical trial or disclosure of trial results in their entirety.

**Results Point of Contact:**

Name/Title: Study Director  
Organization: Novartis Pharmaceuticals  
phone: 862-778-8300

**No publications provided**

Responsible Party: Novartis ( Novartis Pharmaceuticals )  
ClinicalTrials.gov Identifier: [NCT00881205](#) [History of Changes](#)  
Other Study ID Numbers: **CENA713DDE18**  
Study First Received: April 14, 2009  
Results First Received: January 20, 2012  
Last Updated: March 8, 2012  
Health Authority: Germany: Federal Institute for Drugs and Medical Devices