Clinical Study Synopsis

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The study listed may include approved and non-approved formulations or treatment regimens. Data may differ from published or presented data and are a reflection of the limited information provided here. The results from a single trial need to be considered in the context of the totality of the available clinical research results for a drug. The results from a single study may not reflect the overall results for a drug.

Bayer HealthCare

Clinical Trial Results Synopsis

Study Design Description		
Study Sponsor:	Bayer Healthcare AG.	
Study Number:	13089	NCT00780455
Study Phase:	IV Interventional	
Official Study Title:	Multicenter, open label, randomized and parallel group phase IV pilot study evaluating the effectiveness of functional rehabilitation protocol in RRMS patients treated with Betaferon	
Therapeutic Area:	Neurology	
Test Product		
Name of Test Product:	Interferon beta-1b (Betaseron, BAY86-5046)	
Name of Active Ingredient:	Interferon beta-1b	
Dose and Mode of Administration:	250 microgram (8 MUI), sub-cutaneous, administration every other day	
Reference Therapy/Placebo		
Reference Therapy:	Not Applicable	
Dose and Mode of Administration:	Not Applicable	
Duration of Treatment:	3 Months	
Studied period:	Date of first subjects' first visit:	14 October 2008
	Date of last subjects' last visit:	24 September 2009
Study Center(s):	12 centres in France (2 centres of 12 initiated centres were active)	

Methodology:	Phase IV pilot, Multicenter, open label, randomized and parallel group Patients, men and women, with RRMS and aged over 18 years will be included by the neurologist. After the inclusion visit at the neurologist (V0), patients will start Betaferon® treatment within 7 days. All patients will receive open-label treatment by Betaferon® during 3 months. The treatment will be provided by the sponsor all over the study duration. Patients will be randomised for the functional rehabilitation protocol (FRP) into two parallel groups - Arm 1: Patients starting the 6 weeks FRP within 15 days after randomisation - Arm 2: Patients starting the FRP later, about 6 weeks after randomisation. The rehabilitation program consists of an intensive program over 6 weeks of effort and muscular reinforcement rehabilitation, either in the reference center or in a proximity center identified by the rehabilitation physician. After the inclusion visit the study includes at least 3 regular visits with the neurologist and 3 visits with the rehabilitation physician over the 3-months duration of the study. Neurologist visits : - V0 (inclusion) - V1 : End of the first month of treatment - V2 : End of the second month of treatment - V3 : End of the third month of treatment Rehabilitation physician visits : - MR1 : First visit with the rehabilitation physician no more 15 days following the V0 visit with the neurologist. - MR2 : Second visit with the rehabilitation physician 6 weeks after MR1 +/- 1 week. - MR3 : End study visit with the rehabilitation physician 12 weeks after MR1 +/- 1 week. Patients with a premature end of study will not be replaced.
Indication/ Main Inclusion Criteria:	- Female and Male patients aged 18 and more; - Confirmed diagnosis of RRMS according to the MacDonald or Poser criteria; - First indication for Betaferon® treatment (as described in SmPC); - No relapse of MS in the last two months before the inclusion; - Walking patients having an EDSS score between > 1 and ≤ 4 at the inclusion visit; - Female of child-bearing potential must agree to practice adequate contraception methods over all the duration of the study; - Patient can follow all the study and comply with all procedures of the trial protocol - Laboratory evaluations (i.e. evaluation of hepatic enzymes gammaGT, full blood count and differential WBC) must be available and the results must be normal

Study Objectives:	Overall: To study the effectiveness of a functional rehabilitation protocol (FRP) in early RRMS patients treated with interferon beta-1b (Betaferon) by comparing the physical ability of patients with and without FRP Primary: The principal evaluation criterion is the covered distance during a walking test of 6 minutes (6MWT). The gain of the total walking range will be evaluated, that is the absolute diffrence between the covered distance before (MR1) and after (MR2) having realised the functional rehabilitation protocol in arm 1. This difference will be compared to the results at the respective timepoints of arm 2 without FRP Secondary: For arm 1 : evaluation of the persistency of the effect by comparing the results (covered distance gain, knee isokinetic evaluation and posturography) immediately after FRP (MR2) to the results 6 weeks later (MR3) For both arms : - Knee isokinetic evalutation (muscular strength) - Posturography - Questionnaire measuring fatigue : FSS - Questionnaire measuring the quality of Life (SEP-59) - Tolerability and Safety of Betaferon® (number of AE reported by the patients and observed by the investigator).
Evaluation Criteria:	Efficacy (Primary): 6 minutes walking test (6MWT) validated test: the mesasured parameters are : - The total walking area (in covered meters) either after 6 minute or at the time of the premature stop of the test. - The time of discomfort appearance (time and distance covered). - Any rhythm changes. Efficacy (Secondary): • Knee isokinetic evaluation (muscular strength) The isokinetic evaluation analyses the flexor/extensor ratio at different rates. The evaluation will be done at the beginning on the best clinical side otherwise on the strongest. • Posturography protocol Static equilibrium performances are evaluated in the standing patient on a fixed platform, in the standardized position (arms dangling, feet open at 30° and malleolus at a 5 cm distance). • FSS questionnaire • Quality of Life questionnaire (SEP 59)

	Safety: Parameters (AE, Adverse Event, and SAE / Serious Adverse Event), given by questioning or spontaneous reported by the patient, will be recorded at each visit in the CRF's corresponding pages.
	Pharmacokinetics: Not Applicable Other: Not Applicable
Statistical Methods:	Efficacy (Primary): The following parameters will be analysed for the Intent-to-treat set and for the Per protocol set if there is more than 10% less patients in the Per protocol set than in the Intent-to-treat set. • Endpoints : Covered distance gain between MR1 and MR2. • Timepoints : MR1, MR2. • Expression : Covered distance gain : absolute difference between MRi and MRj (MRi-MRj). •An inter-group comparison and an intra-group comparison will be performed using statistical tests. Efficacy (Secondary): • Endpoints: Covered distance, Covered distance gain between MR2 and MR3, Knee isokinetic, Knee isokinetic gain between MR1 and MR2, Knee isokinetic gain between MR2 and MR3, Posturography, Posturography gain between MR1 and MR2, Gain in posturography between MR2 and MR3, FSS, Quality of life, Satisfaction questionnaire. • Timepoints: MR1, MR2, MR3. • Expression : Raw data, Covered distance/ Knee isokinetic/ gain : absolute difference between MRi et MRj (MRi-MRj These variables will be described by visit and by study arm. An inter-group comparison and an intra-group comparison will be performed for the Knee isokinetic gain between MR1 and MR2 and the Posturography gain between MR1 and MR2 using statistical tests. An intra-group comparison will be performed for the Covered distance gain between MR2 and MR3, the Knee isokinetic gain between MR2 and MR3 and the Posturography gain between MR2 and MR3 using statistical tests Safety: The safety analysis will be performed by study arm for the global population For each event, the following information will be detailed by dose regimen : number of events, number of partients presenting the considered event, ratio of the number of patients presenting at least one event with the number of exposed patients

	Pharmacokinetics: Not Applicable Other: Not Applicable
Number of Subjects:	Planned : 70 patients planned (35 by arm) Treated : 4 patients

Study Results
Results Summary — Subject Disposition and Baseline
Only 4 patients were enrolled in the study on 70 planned patients in spite of the continuationof the period of inclusion of 13 months No statistical reported was done due to the very low number of patients
Results Summary — Efficacy
Due to the very low number of patients enrolled in the study, no statistical report was done
Results Summary — Safety
0 Adverse Event and 0 Serious Adverse event E was reported during the period of treatment (3 months) for each patient
Results Summary — Pharmacokinetics
Not Applicable
Results Summary — Other
Not Applicable

Conclusion(s)
Due to the very low number of patients enrolled in the study,no statistical report was done

Publication(s):	Not Applicable
Date Created or Date Last Updated:	22 September 2011

Product Identification Information

Product Type	Biological product
US Brand/Trade Name(s)	Betaseron
Brand/Trade Name(s) ex-US	Betaseron, Betaferon
Generic Name	Interferon beta – 1b
Main Product Company Code	BAY86-5046
Other Company Code(s)	ZK 157046
Chemical Description	Recombinant protein
Other Product Aliases	

Date of last Update/Change: 12 Sep 2013