Reviewer’s report

Title: Evaluation of an electronic diary for improvement of adherence to interferon beta-1b in patients with MS - Design and baseline results of an observational cohort study

Version: 1 Date: 9 June 2013

Reviewer: Jörg Kraus

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Zettl et al. report the design and also the baseline results of a industry-sponsored observational study to evaluate the helpfulness of an electronic diary to improve adherence to interferon-beta. With the first look these data do not really sound interesting. However, be looking in more detail on the study it becomes obvious that the presented study is interesting at least for MS specialists as it provides important data on epidemiology of current MS treatment from a huge cohort of 700 "real-life" MS patients. Moreover, comprehensive data on subgroups of patients are given who decide for or against an electronic diary.

Major compulsory revisions:

1) This is obviously a study which has been initiated by a pharmaceutical company. It is therefore very important to ommit all parts (in particular in introdcution and discussion) from which the reader can get the Impression that they are rather given due to commercial interests than for a scientific presentation of the study. In particular, the quality of the discussion need to be enhanced: Statements already given in the introduction need to be avoided (e.g. 2nd part of the 1st para of the discussion). The authors should rather discuss their results in more detail, e.g. why patients with different conditions (male sex, no depression) prefer to take or not to take the electronic device

2) For a better understanding of the text: Avoid almost similar and thus confusing abbreviation (PDA vs. PD -> rather use "eg. dig." vs "pap, dig-R vs. dig-NR)

Minor essential Reviews:

- p.4, 3rd line from bottom and p. 5, line 10: skip "be"
- be consistent with abbreviations: INF vs. IFN, DMT vs. DMD
- p.5, line 5: "Quality Reviews": Explain in more detail: how often, when, by whom, numbers, etc. Provide a figure with the study design schedule.
- p.5: "Contraindications... considered": Have patients been excluded from the study due to contraindications?
- p.5: State exactly how "discontinuation" is defined.For example, is it a discontinuation if a patient only gives the first dose on the first day and the second dose on the last day of the study?
- p.6: Define "NIS"
- Methods: A figure showing the device would be interesting
- Results, first line: "n=3 missing" provide exactly what is missing. Have only 697 patients (496 f + 201 m) been included?
- Tab 2: include the p values
- p.7, line 5: describe the "effects"
- p.7, last para: Help the reader by providing brief Information what lower or higher scores mean in the respective tests

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests