Reviewer’s report

Title: Effect of Peginterferon Beta-1a on MRI Measures and Freedom from Measured Disease Activity: Results from a Randomized Controlled Trial in Relapsing-Remitting Multiple Sclerosis

Version: 2  Date: 2 August 2014

Reviewer: Robert Naismith

Reviewer’s report:

In the introduction, authors mention FMDA may permit comparison across trials. I would remove this, FMDA is largely driven by MRI, which varies by baseline characteristics and analysis center. I’m not sure why creating ORs is more valid for cross-trial comparisons that are absolute numbers, as was listed in the discussion.

There are many graphs that are demonstrating the essential same effects. The authors should select the key graphs for the manuscript and make the remainder as online-only graphs. Figure 2 can be online, Figure 1d is adding little additional information to figure 1a. Figure 4 and 5 can be online only.

It is a little confusing to see MRI endpoints and FMDA at 48 weeks for placebo, since placebo was only used for the first year only. I would include a graph of the study design and highlight what the 48 week placebo endpoints represent in the graphs.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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

Declaration of competing interests:

I have received honoraria for consulting and speaking from Biogen Idec. I am a site PI for the phase IV study of pegylated-interferon (ALLOW).