Reviewer’s report

Title: The prevalence of injection-site reactions with disease-modifying therapies and their effect on adherence in patients with multiple sclerosis: an observational study

Version: 1 Date: 7 June 2011

Reviewer: Alessandra Lugaresi

Reviewer’s report:

1. Is the question posed by the authors well defined? The questions posed by Authors are clear but partly misleading, as only responders were included, as an enrollment requirement was continuous treatment for at least 2 years. There are VERY few Glatiramer acetate (GA) treated pts, but this is clearly stated

2. Are the methods appropriate and well described? Yes, Methods are clearly described, but not completely appropriate. A multivariate analysis, including treatment duration, gender, age, might have provided more insight.

A prospective study including patients interrupting treatment before 2 yrs would also have been more informative. In the introduction is stated that:

O’Rourke and Hutchinson reported that patients stopped IFN# therapy because of side effects after a median of 13 months [6]. This means that the worst side effects would not be present in people still on treatment after 24 months.

The significance of a missed injection is different if you take a drug once weekly rather than daily or every other day. I’d rather indicate the percent of missed injections.

I notice the % of female patients (more at risk for ISR) was lower in the IM IFN group: I think something should be stated about this point, even if the difference is stated as NOT SIGNIFICANT

3. Are the data sound? Retention in the study was around 85%, which is quite good. I have some perplexities about the prevalence of lipoatrophy in IFN-beta1a subjects. This is not my experience

It is quite obvious that the IM IFN does provoke less ISR. Attention, though, should be paid also to FLS, which is not object of this study, but which is a relevant cause of loss of adherence up to discontinuation. Only little is stated about this cause of discontinuation.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition? Yes

5. Are the discussion and conclusions well balanced and adequately supported by the data? Yes, but data collection was limited to only some aspects. In the discussion much attention is given to early discontinuation due to ISR, but patients studied were those NOT interrupting treatment early. Therefore I believe
the discussion should be modified, to highlight how difficult it is to obtain high adherence to treatment in the long term, rather than initially

6. Are limitations of the work clearly stated? In part. It should be clear that early discontinuations, either due to inefficacy or side effects would not be captured in this paper.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? Yes

8. Do the title and abstract accurately convey what has been found? Yes

9. Is the writing acceptable? Yes

All revisions requested are minor

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

Prof Lugaresi is a Biogen Dompé, Merck Serono, Bayer Schering and Allergan Advisory Board Member. She received travel grants and honoraria from Bayer Schering, Biogen Dompé, Merck Serono, Novartis, Sanofi Aventis and Teva and research grants from Bayer Schering, Biogen Dompé, Merck Serono, Novartis and Sanofi Aventis. Prof Lugaresi has also received travel and research grants from the Associazione Italiana Sclerosi Multipla and is a Consultant of “Fondazione Cesare Serono”.