Reviewer’s report

Title: The effectiveness of very early rehabilitation for acute stroke patients in Japan: a nationwide cross-sectional survey

Version: 1 Date: 29 March 2010

Reviewer: Julie Bernhardt

Reviewer’s report:

Comments for authors

Thank you for the opportunity to review this very interesting paper. I found the quality of the writing to be of a very high standard and the paper to be of scientific merit. The question is clearly stated and the methods appropriate. Below you will find specific comments to the authors which, when addressed, should increase the clarity of the manuscript for readers.

General comments

The modified Rankin Scale is considered a measure of global disability rather than a specific measure of ADL. Rather than referring to improvements in ADL, I believe you should refer directly to the mRS in all tables and be very clear about the scale you are referring to in the text. At present this is quite jumbled within the document. Also see my comments on the extent of disability across the scale - you need to modify this as well. Instead of saying “improved ADL” say “less disability”. Please amend throughout. Compulsory revision

Although Endaravone is favoured in Japan, it is not in common use elsewhere in the world. However, given the common practice of prescribing Endaravone it is appropriate that the authors included it as a factor within this study. No action

1. Abstract

1.1 I think your final conclusion that these data support the effectiveness are perhaps a little overstated. This is not an efficacy study and the jury are still out with respect to VEI, you also had some strange findings related to intensity of training which you have attempted to explain in the discussion. I would be in favour of something less strident and more tempered here eg. “These data suggest that rehabilitation commenced within 3 days of stroke may lead to better outcome with no increase in adverse events compared to delayed rehabilitation” or something similar. Minor essential

2. Introduction

2.1 One of the difficulties in the field of early rehabilitation is a lack of clear definition. It is important that you define what you mean by very early rehabilitation early in the manuscript – both in terms of the timing of onset and the content. Please do this early in the manuscript. Minor essential.
2.2 Page 6. “instrumental variable (IV) methods have been used to overcome potential selection bias due to the presence of unobserved confounding factors in the observational data” – provide an example (brief) here, with reference. Discretionary

3. Methods

3.1 Page 10. “Statuses of VEI administration…” unclear please expand – do you mean functional severity and functional capability. Both of these need further definition, in brackets provide the factors that were incorporated into each of these. Minor essential

4. Results

4.1 Page 13. 17.6% had small (not moderate) functional deficit – if you mean they had an mRS =0 or 1. This would not be classified as a moderate deficit. 0 is no deficit, 1 = “no significant disability”. An mRS of 1 can therefore not be classified as moderate. This is used twice on page 13 and needs correction. Essential

5. Tables

5.1 Page 35. Table 1 – I found this table difficult to follow. I suggest that instead of adding codes to the results column you indent the categories of relevance and then align the data with the category. Not all categories need to be included- for example if you are including patients in the gender column, just put female (or male) and add data. This table does not work as it is currently set out. Footer should read standard ‘deviation’ not division. Essential

5.2 Table 2. Column labels of 0 and 1 are not helpful. Suggest you change to With VEI, Without VEI or VEI, no VEI to help clarify for readers. Please also refer to my general comments for changes to ‘ADL’ categories. Minor essential

Thank you for the opportunity to review this very interesting paper.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

I declare I have no competing interests.