Reviewer's report

Title: Modified constraint-induced movement therapy or conventional occupational therapy following injection of Botulinum toxin-A to improve bimanual performance in children with hemiplegic cerebral palsy: A randomised controlled trial methods paper

Version: 1 Date: 26 March 2010

Reviewer: Matti Sillanpaa

Reviewer's report:

Hoare et al present a randomised clinical trial methods paper for comparing modified constraint-induced movement therapy with conventional occupational therapy following injection of Botulin toxin-A in children with hemiplegic cerebral palsy. The paper is overall written logically and in fluent English. However, some remarks is to be made.

- An exhaustive introduction gives a good picture of the background and problems in the treatment of spastic cerebral palsy. Similarly, the methods section is very wide and broad and includes a lot of discussion. Every effort to abridge the text would be welcomed to make it easier for the reader to follow the thinking of the authors.

- Another feature is subheadings. They are definitely too many, because the text goes to pieces, and they are not in rank order by font sized or type.

- There are several hypotheses in the study, and one can only guess why there are two hypotheses 4; in the Methods, only one hypothesis #4 will be tested.

- The inclusion criteria are followed by another subheading of inclusion criteria, virtually including exclusion criteria. The exclusion criteria should be determined more precisely. For example, was mother tongue other than English, intelligence deficit or other co-morbidity a criterion of exclusion? The source population can hardly be defined but, supposedly, a distance from the hospital (possibly determining the sociodemographic features of the population), financial or other resources of the families, if better/worse than the average, may influence of the capacity of the families (as is in the reviewer’s experience). Were the study subjects from the neighborhood of the hospital?

- Was the inter-observer/inter-rater variability checked and how was the method of arriving at consensus, f. ex., in determining the degree of disability in the study subjects assessed for inclusion/exclusion?

- One basic question is the definition of "hemiplegic cerebral palsy". Were, f.ex., subjects who had quadriplegia with predominantly unilateral spasticity included? Were only subjects with congenital spastic hemiplegia included?

- Amendments had to be made in shortage of study patients. Could any particular causes be determined for the shortage? Unexpectedly many who did not fulfill the criteria? Too many refusals? Too many dropouts during the procedure?
Difficulties in finding matchable pairs within the limits of preset age? By the way, were the pairs matched for gender?

- In the text, there are no references to the table or figures.
- Finally, a suggestion. Might the authors consider the option of writing two papers: (1) a literature review on the current status of the treatment of hemiplegic cerebral palsy, and (2) another paper of the methodological plan (with a reference to the former paper)?

**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 declare that I have no competing interests.