Reviewer's report

Title: Long term outcome in relationship to neonatal transfusion volume in extremely premature infants: a comparative cohort study

Version: 2 Date: 7 October 2010

Reviewer: Robert Christensen

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Von Lindern et al report neurodevelopmental outcomes, at 18-27 months of age, of extremely preterm infants cared for in two NICUs in the Netherlands. The two NICUs differed in the volume of blood administered in each erythrocyte transfusion (15 mL/k vs. 20 mL/k), but they otherwise used similar transfusion guidelines.

This submission describes a longer-term follow-up of the subjects in a previous study (author's reference #13). In the previous and present studies, no significant associations were identified between the volume of blood given and developmental outcomes. The topic is clinically important and the writing is clear. The authors are to be congratulated on continuing the observation period of their previous study subjects and reporting the new findings. They might consider the following if the submission is to be revised before publication:

Discretionary Revisions

1. The difficulty in publishing “negative findings” is well documented. Often such reports are briefer than the present report to assist readers who are at times overwhelmed with the volume of studies to read and digest.

2. Page 4. Methods. Ethics. It is unclear to what the parents were consenting, since the transfusion guidelines were preexisting and routine in each of the two NICUs. Clarification would be helpful.

3. Background. Perhaps readers would be better served with a shorter and more to the point introduction, with the literature review reserved for the Discussion section.

4. Figures. (figure 1). As much as possible, previously reported data should be omitted, with references made to the figures in the previous publication (figure 1).

5. Figures. (figures 2a, 2b, 3a, 3b). Since, in the end, there were no developmental differences identified on the basis of transfusion practice, it can be questioned whether these four figures are all essential. Since space is not a strong consideration in the journal format, the authors should be at liberty to make this decision.

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