Reviewer's report

Title: An overview of systematic reviews on upper extremity outcome measures after stroke

Version: 2
Date: 9 February 2015

Reviewer: Janne Veerbeek

Reviewer's report:

BMC 4146487615151855

By summarizing the evidence for outcome measurement of upper limb motor function/activities in stroke rehabilitation, the authors have made an important step towards uniform measurement in stroke rehabilitation. Their methods are thorough and transparent, and their interpretations make sense.

Major Compulsory Revisions
The author must respond to these before a decision on publication can be reached. For example, additional necessary experiments or controls, statistical mistakes, errors in interpretation.

1. I do miss information in the main text about the assessment of the clinical utility of the OMs. In Table 3 time to administer and administrative burden are mentioned. However, I think that also aspects such as cost, need for training or equipment and the portability should be taken into account. This should also be discussed in the discussion section.

2. There seems to be a discrepancy between the aim and second inclusion criteria: stroke vs. hemiparesis. Hemiparesis could also be caused by other diseases. Could the authors eliminate this discrepancy.

3. Please add information about a possible language restriction (inclusion criteria).

Minor Essential Revisions
The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

4. The manuscript closely follows the PRISMA-statement. Only the presence of a pre-registered protocol and funding are lacking. Please add information about these two aspects.

5. Table 2: Please check the bold OMs; it seems that not all included OMs included in the final set are bold.

6. Table 3:
   o Clear table, addition of a row at the top with the ICF-categories would be informative.
o Please state that this is the FMA motor section.

7. Figure 4. To improve consistency and readability, please rank the OMs according to the ICF.

8. p.15. Could the authors explain why another OM on the motor function of the paretic arm is needed, next to the FMA which has already proven to be a very suitable OM for this domain?

9. p.17. The development of kinematics is well described and important for future research and clinical practice. The authors should elaborate a bit more about objective measurements for arm-hand use in daily living (i.e. transfer to real life) by using for example accelerometry.

10. To enhance the transfer from these findings to research and clinical practice, a short description of suggestions for implementation are valuable.

Discretionary Revisions
These are recommendations for improvement which the author can choose to ignore. For example clarifications, data that would be useful but not essential.

11. p. 15. ARAT not only assesses the time performance, but also the use of compensatory strategies. Please add this aspect.

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'