Reviewer's report

Title: A comparison between reported staffing levels and the Department of Health staffing guidelines for stroke rehabilitation: A UK national survey.

Version: 2 Date: 1 November 2013

Reviewer: Fiona Jones

Reviewer's report:

1. Is the question posed original, important and well defined?
The findings present an interesting answer to questions about whether Department of Health recommendations regarding staffing are sound, and the extent to which stroke teams are meeting recommended staffing levels. It should be made clear that this is within the context of UK guidelines. The study conclusions are clear to me in suggesting that the reason that guidelines are not being met is (at least in part) due to inadequate staffing. However it is not clear to me that this was the question posed by the authors. The survey states that it ‘aims to establish the current treatment methods in upper limb rehabilitation during the first 12 months after stroke’ (supplementary file p1). This is a different question (covered by the second part of the survey) and is not reported on in the article. It might be clearer to explain that the survey sought to answer two questions, and the first one is reported on in this paper (if that is the case – although this raises issues about the information provided to respondents about the survey aims). The question which the authors answered in this paper is original and important within the context of the field, but I felt the abstract and introduction did not make this question clear or justify it adequately. For example, the objective in the abstract states ‘The National Sentinel Audit expressed a concern about the small proportion of stroke patients deemed appropriate by therapists for rehabilitative therapy while in hospital. This study examines that concern by reporting staffing levels…’. I would say that this paper does report staffing levels, but this does not examine the concern about the small number of patients deemed appropriate for rehabilitation.

Page 2 states that a key objective was ‘to delineate the extent of stroke rehabilitation provided across the whole of England during a patient’s first 12 months post-stroke’. Again, this did not appear to me to be the question that the article addressed, and adds confusion about which setting was being investigated.

2. Are the data sound and well controlled?
It was not clear to me whether the study analysed data about stroke units or any team seeing stroke patients. It is stated that 37 respondents were identified as in-patient care, and 40 were post hospital care, but it would seem strange to pool this data together as different settings would inevitably have very different staffing levels. It was also not clear which setting(s) the department of health recommendations referred to. I assume that they only used data from stroke unit
teams for this paper, and may use other data when looking at upper limb treatment, but it would be helpful to clarify this.

3. Is the interpretation (discussion and conclusion) well balanced and supported by the data?

An important conclusion of the study relates to calculations the authors made in order to come up with a revision of the department of health recommendations. This was clearly described but I do not feel I have sufficient expertise to comment on whether this was a suitable calculation. I think it is likely to invite debate, which would be no bad thing as it would also open up debate about the methods used to derive the original recommendations.

However, the interpretation of the data did not consider therapy assistants, who may also provide therapy to count towards the 45 minute recommendation. I wondered if they were included in the staffing numbers and whether the re-calculation of recommended therapy rested on the assumption that face to face therapy had to be provided by qualified staff (which is not the case in the current recommendations).

4. Are the methods appropriate and well described, and are sufficient details provided to allow others to evaluate and/or replicate the work?

I was not sure of the rationale for emailing 192 providers with their survey, when presumably it would have been possible to access more sites via the network. (The wording ‘192 surveys’ should also be corrected – one survey was sent to multiple people, not multiple surveys sent). I was also confused that the selection initially seemed to aim for some randomisation (by choosing the 13th entry on each list) but later it was stated that ‘we specifically targeted clinicians who have a strong interest in stroke improvement’ p6. This struck me as inconsistent, and I wondered if it might introduce bias. I felt this should have been discussed, particularly when the results presented a criticism of current recommendations. I would also recommend review by a statistician.

5. What are the strengths and weaknesses of the methods?

As stated above, I would recommend the following:
- Clarification of the question / objectives, and more logical justification
- Clarify which settings were included in data analysis
- Explain why more teams were not targeted.
- The focus group seemed useful, but 30 seemed like a large number. Why was such a large group involved and how did this work?
- Were specific clinicians targeted out of the teams already selected, or did this influence the selection of teams? Might this targeting have influence the findings / introduced bias? Is it representative to target teams who already have a louder voice?

6. Can the writing, organization, tables and figures be improved?

As already stated, improvements could be made to the abstract and introduction to ensure that the question is clear and justified. The tables included are clear.
was also curious to see a table representing the data compared with the authors’ proposed guidelines – it would be interesting to see this if it could be included.

Minor corrections are need to correct typos eg p16 should ‘grant applicator’ be ‘grant applicant’?

7. When revisions are requested.

I would suggest major revisions including a re-working of the abstract and introduction to ensure the question / objectives relate to the findings or explain why other findings have been reported, and to make a clearer case for the study. There is a good case for it, but I don’t think this has been explained logically. Further details of which setting was included should be included in the methods section.

8. Are there any ethical or competing interests issues you would like to raise?

No.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

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

**Declaration of competing interests:**

I declare that I have no competing interests