Reviewer's report

Title: Process and outcomes of inpatient stroke rehabilitation in Africa: Quantitative and Qualitative Findings

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Reviewer: Mary Egan

Reviewer's report:

Major compulsory revisions

The authors state that “the aim of this paper is to present the process and outcomes of post stroke rehabilitation from three African countries”. Sampling from three hospitals in three countries, the authors determine the average length of stay and the average number of physiotherapy treatments. (process data) They then present thematic analysis of interviews with patients regarding participation limitations (outcome data).

In the paper: Brainin, Michael, Yvonne Teuschl, and Lalit Kalra. "Acute treatment and long-term management of stroke in developing countries." The Lancet Neurology 6.6 (2007): 553-561, the authors state: “Further research is also needed to develop customised acute care and rehabilitation strategies most appropriate to the needs and circumstances of developing countries to help them alleviate the growing burden of stroke.”

The topic of the paper is clearly important. While stroke incidence continues to rise in Africa, we know very little about providing stroke care, particularly stroke rehabilitation, outside of industrialized countries. I believe the manuscript might benefit from a discussion of what is currently known regarding stroke epidemiology in South Africa, Rwanda and Tanzania, as well as what has been discussed regarding the provision of stroke rehabilitation in Africa or the developing world in general.

While the aim of the paper is important, I believe that it has been defined too broadly in this paper. The authors appear to have interesting comparative data about in-patient stroke care in three hospitals in three different countries. More information about the communities and the hospitals would be helpful. What are the sizes of the communities, the health resources, the most common occupations and family structures and the terrain? How are health services financed? As well, I was not completely clear on the length of time over which the charts were sampled.

One of the objectives of this paper could be to simply present this data, that is, an example of the situation in three communities in three countries, that could then be discussed in terms of stroke best practices and available physiotherapy resources. A very interesting potential topic for the discussion section could be, given current resources, how could rehabilitation services be optimized? Given
that length of stay is about a week in each community, how could patients be best mobilized during this time? Would community-based rehabilitation initiatives be a priority?

The time since stroke onset (TSO) numbers were fascinating. Are these figures the time between the stroke occurrence and admittance to hospital? If so, what is happening to patients in the meantime?

I would be interested in the standard deviations for LOS and TSO.

Regarding the interview data, I’m not sure that this data is best characterized as “outcome” data, but rather, as the authors state, relate more to “challenges experienced by stroke patients while in the home or community setting.” I see this part of the paper as more of an exploration of the challenges of stroke survivors in these communities. There are quite studies addressing this type of question from North America and Europe. I believe the authors could make an important contribution to the literature by going a bit further into the analysis, comparing the difficulties by community and reflecting further on the characteristics of the communities and the challenges raised by the participants. Furthermore, this analysis could help the authors reflect further on recommendations for stroke rehabilitation in these communities. That is, given health services restrictions and these long-term problems, what might be the best organization of services to deal with these problems?

Minor essential revisions

Much of the literature review consists of an explanation of the WHO ICF model. I feel this section is somewhat lengthy and a bit unclear. I would recommend cutting much of this.

Discretionary revisions

Other papers that might be helpful to look at:


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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**
I declare that I have no competing interests