Reviewer's report

Title: Prevalence of and Characteristics Associated with In-Hospital Mortality in a Ugandan Neurology Ward

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Reviewer: Shuichiro Neshige

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Comments to the Author:

This is one of the largest observational study that investigated mortality of patients in Ugandan.

Some clinical factors including a diagnosis of stroke at admission had a significant association with poor outcome. These results were important given the present and future medical condition in the developing country. However, I do have some remarks, which raise the following concerns:

Major points:

1: Though the results are interesting, the major limitation is that the causative or background of death is not investigated sufficiently. For example, the day of death is important: some patients died immediately after the administration whereas some of those died one month later (range: 0 to 47). These differences can be attributed to the different etiologies. Thus, it should be analyzed or discussed. Further, results generated by multivariate analysis can be different if the subjects were categorized into two groups (those died earlier and later).

2: The observational period for each patient is unclear. The author stated that "While nearly 30% of the patient,,,, during the 29-month study period" in Results. Is this meant that all the enrolled patients were observed throughout the 29-month study period? All the death during this period was reported?

3: "Initial diagnosis" is also unclear. Why the patients with diabetes or hyperlipidemia were admitted to the Neurology wards? Diabetes or hyperlipidemia are the chief condition for their hospitalization or are the comorbidities? In this regard, clinical picture of patients who had no "diagnosis" is of importance. May be, some patient had no "diagnosis" at admission but had a "diagnosis" until their discharges. Meanwhile some patient had no "diagnosis" throughout the period. Some tentative diagnosis was different from the final diagnosis during their stays. Thus, "patient without a diagnosis" can be heterogeneous and those are unsuitable to be combined for the analysis. This condition should be address or discussed.
May be "supplementary table 4" is the relevant, however it is not stated in the manuscript. I could not understand the "missing admission diagnosis". Is this meant that "lacking the data" or "it was difficult to make a diagnosis due to the patient's condition at the admission"?

4: Results from the multivariate analysis (table 3) are important. Why the occupation categories are strongly associated with the poor outcome? The relevant speculation should be stated in Discussion. Baseline condition before administration was different between high and low occupation categories? Medical treatment and care during the stay were different between these groups?

5: How do the authors diagnoses patients with stroke? This should be stated in the Methods. Since the authors have stated that "stroke" is one of the major causative of death. The relevant discussion is interest, however, severity of stroke at admission (such as NIHSS or mRS) is of interest, which should be stated in the Results.

6: General population of the subjects is not clear. For example, how many patients (per year) were admitted to this hospital, or how many patients (per year) were admitted to the Accident and Emergent ward? These data is important because some of them were transferred to the Neurology ward. The proportion of patients who were transferred to the another hospital wards are also not clear.

7: Table 1 must be modified: it is complicated and difficult to follow. Furthermore, some lines are unnecessary (for example, CT scan and Past medical history need only the line of "Yes" or "No").

8: The section starting with "While we identified...." in Discussion (p13) should be revised. More scientific discussions are needed for this issue.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

No

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**
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No

**Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?**
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I am able to assess the statistics

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