Reviewer’s report

Title: Gender and thrombolysis therapy in stroke patients with incidence dyslipidemia

Version: 1 Date: 25 Sep 2018

Reviewer: Godfred Odei Boateng

Reviewer’s report:

Dyslipidemia increases the risk of chronic diseases such as stroke and stroke-related mortality in more men than women. Although questions have been raised on the use of recombinant tissue plasminogen activator (rtPA) for the treatment of Ischemic stroke, the risk it presents to patients has led the exclusion of some patients from the therapy. This study aimed at examining the gendered differences in the inclusion and exclusion of patients from the therapy. This may be the first study to examine such differences and provides sufficient evidence to determine the risk factors that can be targeted to eliminate gender differences and improve the use of rtPA in the management of acute ischemic stroke patients. There are a few minor comments that need to be addressed before the paper goes for publication.

1. The introduction of the paper was well written and is logically coherent. However, I will ask that the authors indicate the questions or hypothesis guiding the study in the concluding paragraph of the introduction.

2. It will add depth to the paper if the authors provide statistical evidence for the number of men and women who are at risk of stroke and those who died from stroke to show for the gender differences (e.g. reference could be made to the past year).

3. The authors excellently provided a general overview of the data collection process and do refer to the description of the GHS registry in previous studies. However, it will be beneficial to readers if the authors briefly provided a description of the GHS registry highlighting how data on each of the variables was previously collected and coded for the analysis.

4. The authors make an important statement regarding data collection as being scrutinized under quality control checks. The statement will be more complete if the authors indicated who embarked on the quality control checks and how it was done (could refer to the protocol).

5. The current statement of the authors on ethics committee approval of the study does not state which institution approved the study and when it was approved. The authors should kindly add such details for clarity. I see this at the end of the manuscript but could be repeated within the manuscript (Kindly refer to the journal author guidelines).
6. The authors should clarify whether rtPA in this study is used as a form of thrombolysis therapy for clarity. Its current application in the study is a bit confusing. The authors should consistently refer to rtPA or thrombolysis therapy to eliminate any confusion.

7. The paragraphs in the discussion are well developed; however, there seems to be a missing piece. The implications for the treatment of men and women with dyslipidemia. Currently, the paper does not address factors that increase the likelihood of being excluded from a thrombolysis therapy and how that can be checked.

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

Yes

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

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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