Reviewer's report

Title: Social Determinants of Health Associated with Hemodialysis Non-Adherence and Emergency Department Utilization: A Pilot Observational Study

Version: 0 Date: 23 Oct 2019

Reviewer: Gayani Shashikala Amarassinghe

Reviewer's report:

This is a very interesting research topic and the efforts the investigators have taken to study this should be really appreciated. However, I have a concern regarding the selection of cases and controls. According to what I understood, people visiting to Emergency department for any reason are included as cases if they have missed at least one hemodialysis session. Controls are recruited from the basis of nephrologist recommendation as rarely missing hemodialysis. Controls might have actually missed a hemodialysis session and therefore are similar to cases. It would be better if authors can explain whether there is any objectively measurable difference in compliance between the groups (for example if they can compare number of HD sessions missed by cases and controls at least in a certain time period.) Otherwise I don't think it is appropriate to compare the two groups and draw conclusions regarding social determinants relevant for non adherence as it will only show social determinants leading to emergency department attendance of patients on hemodialysis. In line number 28 authors have mentioned about logistic regression but no relevant data is presented in the results section. In line 54, mean length of stay is described. However it would be better if authors justify whether mean was appropriate for this data (There could be outliers in data like this). Provision of Standard deviation with the mean will be appropriate if mean can be used. It would be better if the test statistic and the p value can be presented in results section when it is stated as statistically significant or not. At line 56/57 it says "controls are more likely to drive themselves etc". It would be better if it is clearly mentioned that this is when going for hemodialysis.

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