Reviewer's report

Title: Association between sleep quality and cardiovascular damage in pre-dialysis patients with chronic kidney disease

Version: 2 Date: 1 May 2014

Reviewer: Dawn Wolfgram

Reviewer's report:

Major Revisions

Abstract:
1. E/A ratio needs a definition, as does "P". Would prefer that all abbreviations in the abstract are first spelled out.
2. Please add mean eGFR for the cohort.
3. Your study does not imply that "improvement in sleep quality might reverse this abnormality..." that is too far a conclusion and should be removed from the abstract.

Introduction:
No major concerns.

Methods:
1. Page 5 line 25 define "course of disease"
2. Page 4 line 24-page 5 line 5 is discussing results, and this should be moved to the results section. A figure or table may be appropriate.
3. Add the range for the PSQI score, is 5 midway between the min and max?
4. Page 6 line 13-16. This sentence is difficult to understand and needs to be reworded for clarification.
5. Starting on page 6 the statistical analysis describes all the different dependent variable and all the independent variables and seems repetitive. This can likely be shortened since the independent variable remain the same, as far as I can tell.
6. Address why eGFR was a continuous variable in most models except when looking at LVH.
7. Since depression (BDI score) and age were significantly associated with sleep quality I would include those in all your multivariate models.

Results:
1. What is urine acid, this is not well defined.
2. CIMT is not defined (for what I could find), not sure what this is referring to.
3. The tables should have p-values for all the variables included in your
multivariate model not just the ones that were significant.

Discussion
1. Limitations should include the low specificity of your sleep form
2. the low overall age should be a limitation since most CKD populations are older and sleep problems from people in the 20-40s may be very different from those in the 50-70s.

Minor:
Introduction
1. line 17 "a previous study found that poor..." is only for CAPD patients, would replace with study on ESRD in general or HD patients.
2. Would overall get some editorial feedback on the writing.

Results:
1. page 8 line 5 there appears to be a mistake in the BDI score since 1 is not higher than 4.

Discussion
1. type on page 9 line 22 "BID"
2. page 10 line 27-28. How are you concerned that reporting bias will affect your results? concerned that people overreported or under-reported and why?

Level of interest: An article whose findings are important to those with closely related research interests

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