Reviewer's report

Title: Is the staple diet eaten in Medawachchiya, Sri Lanka, a predisposing factor in the development of chronic kidney disease of unknown etiology? - An experience from urinary beta two microglobulin measurement

Version: 1  Date: 28 March 2014

Reviewer: Jennifer Hoponick Hoponick Redmon

Reviewer's report:

MINOR ESSENTIAL REVISIONS

- Major parts of the discussion are written similar to a results section (e.g. page 13 and 14). These paragraphs should be moved to the results section instead and a more comprehensive discussion should take place in the discussion section that discusses the overall implications of the study results, data gaps, and future recommendations.

- For the article to be used in risk assessment, amounts of food eaten should be added to the study if they were collected. It is especially difficult to estimate what amount of "accompaniments" the subjects may have eaten based on the data tables shown. Furthermore, detailing how the consumption bins were developed in greater detail would allow others to more easily use the study findings.

- The first sentence in the background section is written as a statement but is instead a hypothesis and should be modified in structure or changed to say that some studies suggest that megals may be a potential contributor to CKDu.

- "Normal" subjects should be defined in the abstract section as well and further clarification should be noted on p. 5 whether the subjects were deemed healthy or whether they just were tested to not have CKDu. If the latter is the case, perhaps stating non-CKDu subjects is more apt than referring to them as "normal" or healthy. Furthermore, the authors should specify whether other CKD risk factors (and CKDu exclusion factors) were considered for the "normal" subjects such as snake bite.

- ELISA should be spelled out as the first reference on p. 3.

- In p. 3 methods section, language correction is needed in the last sentence where "frequency consumption of foods of animal origin" is written. Language correction also needed in abstract conclusion sentence where "CKDu affected from" is written. Modify last sentence of introduction. Small language corrections needed throughout. Can provide scanned hard copy markup if requested.

- Add fish consumption frequency number in abstract results section

- P. 11 notes that rice consumption is higher among "normal subjects" thus it could be interpreted that it is less likely to contribute to CKDu. However, it should
be noted that 1) the overall rice consumption is very similar across CKDu and normal subjects, and 2) rice consumption could go down once someone is diagnosed with CKDu and trying to live healthier or has a decreased appetite, and this instead could explain for higher rice consumption among healthy subjects. Same general comment for accompaniments on P. 15 first paragraph.

- P. 11 also notes that since rice consumption frequency is almost equal there is no evidence to support heavy metals in rice contribute to CKDu. This section would be more complete if there is a discussion that perhaps other risk factors may play a role in the development of CKDu or work in concert with heavy metals to contribute to its incidence.

- P. 11 notes that a detailed food intake study needs to be conducted prior to "coming to a conclusion" that metals are not a CKDu contributor. The authors should also note that a multifactorial study of the issue is needed to more comprehensively and simultaneously consider all risk factors that may be associated with CKDu.

- The Jayatilake et al. study findings do not support the study results, and caution should be taken in reporting their overall conclusions. A better approach would be to interpret their results individually.

- In conclusion paragraph, last sentence, it should be noted that other risk factors could be at play for CKDu patients.

DISCRETIONARY REVISIONS

- In sentence before conclusion section, it would be apt to note that associated metals testing would also be useful.

**Level of interest:** An article of limited interest

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.