Reviewer's report

Title: Prevalence of Chronic Kidney Disease Among Adult Out-Patients with Diabetes Mellitus in Tanzania

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Reviewer: Delphine Tuot

Reviewer's report:

Comments to the Editor and Authors

Janmohamed and colleagues demonstrate the high burden of CKD among adult outpatients with diabetes seen at a referral center in Tanzania. While these results are not surprising, this manuscript adds to the paucity of literature describing CKD in sub-Saharan Africa. The manuscript would benefit from additional detail in the methods section and a more robust discussion of the predictors (or lack thereof) nephropathy in this population. Specific comments are listed below.

Major Compulsory Revisions:

1. Abstract: The authors use the term renal dysfunction, but it is not clear whether this is supposed to be used interchangeably with the term chronic kidney disease (defined by KDIGO staging) or whether renal dysfunction pertains only to a loss of GFR (not albuminuria). Please make this more clear in the abstract and manuscript.

2. Abstract: In the results section, the authors state that none of the study subjects were aware of their kidney disease, but these results are not mentioned in the results section of the manuscript. I would recommend including this in the results section as well (or just removing from the abstract).

3. Abstract: Please be care when using the word “predict”. Old age was found to be associated with presence of kidney disease, but in this cross-sectional analysis, it cannot be a predictor. Additionally, can the authors state which variables were not found to be statistically associated with presence of CKD?

4. Methods: In the first paragraph, can the authors describe how diabetes care is generally provided to patients in Tanzania? Is it always at a referral center? Is diabetes care provided in community primary care clinics as well? Are individuals who are referred to BMC sicker or with more complications? Such information is key to understanding the possible selection bias inherent to this study. (as the authors mention in their discussion).

5. Methods: Was macro-proteinuria ascertained by dipstick as well? If so, what was the cutoff between micro and macro-albuminuria? If it was ascertained by dipstick, it should be referred to as macro-albuminuria, since dipsticks can only detect presence of albumin.

6. Methods: Chart review was performed to determine prevalence of recorded
diabetic nephropathy. Was anything else ascertained during chart review? Please include this when describing data collection. Also, can the authors describe in greater detail which socio-demographic and clinical characteristics they obtained by patient self-report? If the authors chose to highlight the lack of CKD awareness among their population in the results section, can they describe which question they used to ascertain CKD awareness? Prevalence of awareness in the United States has differed by questionnaire.

7. Results: When describing the univariate analysis, does “presence of hypertension” refer to the presence of a self-reported comorbidity or the presence of uncontrolled hypertension by chart review?

8. Table 1: Can the authors include percentage of ARB use in addition to AceI use? Also, was the “Co-morbidities excluding hypertension” variable a self-reported variable or based on chart review?

9. Discussion: Can the authors speculate about the results of their multivariate analysis examining associations of clinical characteristics with CKD in their population?

10. Discussion: Screening for nephropathy is essential if treatments are available to patients and health care providers. Do the authors believe that there will be greater AceI/ARB use if a screening program were in place? The percentage of individuals on an AceI/ARB is >50% already, which is a higher percentage than that estimated in the United States. While this wasn’t the aim of the study, can the authors comment on this fairly impressive percentage?

Minor Essential Revisions:

1. Introduction: In the last sentence, the authors state that complications of diabetes are “more prevalent”... This is in comparison to which population?

2. Table 1: Please spell out OHGA in a footnote. I assume this refers to “oral hypoglycemic agents”.

Discretionary Revisions:

1. Methods: The last sentence of the “Study design and data collection” section is redundant for a nephrology audience.

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

**Quality of written English:** Acceptable

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