Reviewer's report

Title: Baseline characteristics and prevalence of cardiovascular disease in newly visiting or referred chronic kidney disease patients to nephrology centers in Japan: a prospective cohort study

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Reviewer: Stephen Sozio

Reviewer's report:

The study by Dr. Sesaki and others describes the baseline characteristics of their prospective cohort study, the CKD Research of Outcomes in Treatment and Epidemiology (CKD-ROUTE) Study. The authors then discuss associations of baseline factors with CVD, and compare these characteristics to those of other CKD cohorts.

Among the strengths of this study:
1) To my knowledge, this is the authors’ first manuscript for this study, and describes the design of the study
2) 1138 patients were enrolled in this study, similar in magnitude to Western CKD cohorts and allowing for a different population of CKD to be studied.

I have several concerns:

Major:
Comment 1: The authors should be cautious in analyses about the use of CHF in their definition of CVD. CHF may often not be an atherosclerotic equivalent (unlike the other variables in the definition.) As such, sensitivity analyses should be conducted excluding CHF from the definition of CVD to see whether the associations are similar in direction and magnitude, with just less power.

Comment 2: For table 1 (or 2), I would like to see more demographics. What are the continuous distributions of lipid profiles (cholesterol, HDL, LDL, triglycerides), calcium, phosphorus, albumin, intact PTH, and hemoglobin, and what is the smoking status of participants?

Minor:
Comment 3: The authors omitted the word “was” after diabetes on page 11.

Comment 4: In tables 1 and 2, footnotes should be made to tell what the numbers are: mean +/- sd, median [IQR], and n, %.

Comment 5: The authors should omit the terms “predictive” in pages 15 and 16, as these are cross-sectional associations rather than longitudinal models.

Discretionary:
Comment 6: I would suggest changing the background in the abstract and your manuscript to “In this report, we describe the baseline characteristics and risk factors for cardiovascular disease prevalence among this cohort.” Comparing this to Western cohorts was not a main part of your results, but was just in the discussion.

Comment 7: How was the etiology of kidney disease determined? Other than for GN, this is not entirely clear.

Comment 8: The reasoning behind the dichotomy of some of the variables in table 2 is unclear, as these are non-standard cutoffs. How were LDL of 120, PTH of 65, and hemoglobin of 11 chosen?

Comment 9: The categories of proteinuria are not what we typically analyze or describe clinically (i.e., usually described as normal, microalbuminuria, macroalbuminuria). Was this selected a priori?

Overall, I found the topic clinically relevant, as identifying risk factors for kidney disease progression in multiple populations is an important topic. The CKD-ROUTE study may ultimately add significantly to that literature.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**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