Reviewer’s report

Title: MDRD vs. CKD-EPI in comparison to 51Chromium EDTA: A cross sectional study of Malaysian CKD cohort

Version: 0 Date: 17 Aug 2017

Reviewer: Christophe Mariat

Reviewer's report:

I read with interest the manuscript of Dr Jalalonmuhali and colleagues who have to be congratulated for carrying out this study based on a direct measurement of GFR in Malaysian CKD patients.

While this study is globally well conducted, I have some concerns regarding the way results are interpreted and discussed.

Major concerns:

Table 3: How do the authors explain that BIAS is positive for each CKD category while being overall negative in table 1?

Are the differences between the equations really statistically significant? Seems to me that no statistics were done to directly compare the performance of the 2 equations.

In this cohort, overall, CKD-EPI equation tends to underestimate true GFR even further than the MDRD equation (table 1): this is not expected and should be discussed in consideration of previous literature, of ethnicity, and of the method used for GFR measurement (plasma versus urinary technique)

Table 3 seems to be misinterpreted: precision for stages 3 and 4 (which are clearly the stages that clinically matter) is not different between the 2 equations. More generally, precision of the CKD-EPI equation has not previously been reported to be significantly different from that of the MDRD equation (we invite the authors to take a closer look at this point that has been extensively discussed in the literature).

The discussion is not adequately constructed and is in large part just a paraphrase of the introduction. I recommend the authors to address the issue of the clinical relevance of their data within the scope of their clinical practice. More generally, a more critical review of the literature should be considered.
Minor concerns:

Careful editing of the manuscript is mandatory (especially for correct phrasing):

Page 6 Line 22-24

Line 51-53

Page 8 Line 41

etc

Line 50 : « …is using either inulin or exogeneous markers… » : isn't inulin considered as an exogeneous marker of GFR ?

Line 46-51 : the assumption is not correct. Please carefully revise the way the CKD-EPI equation has been developed

Table 3 :

The distribution of patients across the different CKD stages should appear (absolute number of patient for each category of CKD)

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics
Quality of written English
Please indicate the quality of language in the manuscript:

Needs some language corrections before being published

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