Reviewer's report

Title: Estimation of Glomerular Filtration Rate from Serum Creatinine and Cystatin C in Octogenarians and Nonagenarians

Version: 2 Date: 4 October 2013

Reviewer: Pierre Delanaye

Reviewer's report:

The authors have largely improved their manuscript.

We have still two major remarks:

1) The authors wrote they account for standardization of cystatin C using the formula proposed by Inker (AJKD, 2011): 1.13xCystatin C – 0.105. This way to do is however still misleading. Indeed, in their letter, Inker calibrated the PENIA assay from Siemens. However, the authors measured cystatin C with another method (PETIA, Dako). The calibration to reference material is thus totally different because differences between PENIA and PETIA results might be very relevant (Clin Chim Acta, Volume 398, Issue 1-2, December 2008, Pages 118-124). For this reason, it could be better to focus on the performances of different creatinine-based equations. A potential solution could be to obtain a formula for calibration from the Dako Company.

2) The authors still overinterpret some results. In their conclusion “CKD-EPI_cr is better than BIS-cr at higher GFR levels”. Accuracy 30% is however not different. Precision is even clearly better for the BIS_cr. Only bias is better for CKD-EPI_cr.

Page 10: “There was a greater area under the curve of the CKD-Epi_cr-cys compared with the MDRD and the CKD-Epi_cr equations, although the level of statistical significance has been marginal, p=0.06 and p=0.09, respectively.” and “In general the net reclassification was favorable with the CKD-Epi_cr-cys equation as compared with the CKD-Epi_cys (NRI=6.7, p=0.38), BIS_cr (NRI=12.7, p=0.18) or the BIS_cr-cys (NRI=15.9, p=0.08) equations, basically due to a more often correct reclassification of those with mGFR #60 ml/min/1.73m².” Once again, the differences are simply NOT significant.

Minor remarks:

1) Regarding the point 9 of our prior review. Please consider the KDIGO guidelines “Guidelines 1.4.3.4 : “We recommend that serum creatinine concentration be reported and rounded to the nearest whole number when expressed as standard international units (µmol/L) and rounded to the nearest 100th of a whole number when expressed as conventional units (mg/dL). We recommend that eGFR should be reported and rounded to the nearest whole number and relative to a body surface area of 1.73 m² in adults using the units
ml/min/1.73 m²."

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

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

No conflict of interest to declare