Reviewer’s report

Title: The Relation of C-Reactive Protein to Chronic Kidney Disease in African Americans: The Jackson Heart Study

Version: 1 Date: 26 June 2009

Reviewer: Wilfried Karmaus

Reviewer’s report:

- Major Compulsory Revisions

1. The role of the analyses linking CRP and albuminuria is not clear. Albuminuria may be considered as a marker of glomerular lesions. However, increased total urine protein (including albumin) is a marker of tubular lesions. I believe that the information on albuminuria is important. If no information on total urine protein is available, then please state this limitation, but indicate that the results not showing an association between urine albumin and CRP speaks against a glomerular involvement. Or discuss this.

If you decide to include the information on albuminuria then also include the respective objective, methods, and results in the ABSTRACT.

2. Estimated GFRs (e-GFR), including Modified Diet in Renal Disease (MDRD) equation, are weak predictors of kidney problems (the specificity is OK, the sensitivity is low). Did the study collect other indicators of chronic kidney disease? Please show the link between other interview/medical data and e-GFR. If not, discuss the limitation of MDRD.

3. Page 10, para 1: “Those with .. factors.” It is not clear what you want to say. I have some clues but do not understand this. If you relate to the predominant nephrological explanation that most kidney diseases are caused by diabetes mellitus, then state that your results emphasize another risk factor.

4. Page 10, discussion section under “Mechanism linking CRP with renal function”: You may want to discuss, that others have shown that CRP is related to reduced kidney cortex width and both are reduced to increase blood pressure. (Dimitrov P et al. Increased blood pressure in adult offspring of families with Balkan endemic nephropathy: a prospective study. BMC Nephrology 2006;7:12. Karmaus W et al. Offspring of Parents with Balkan Endemic Nephropathy have higher C-reactive Protein Levels Indicative of Inflammatory Processes. BMC Nephrol. 2009;10:10.)

Hence, CRP may be a marker of kidney inflammation with increased scarring in the kidney cortex, which may then relate to blood pressure.

It may also be important for your investigations that urinary TGF-beta1 excretion was significantly higher in chronic kidney patients than controls (Dukanovi# et al., 2009).
5. I would suggest stratifying table 1 by age. The reason is that more women have increased CRP and also chronic kidney diseases. Please include the result of this stratification in the result and discussion sections.

- Minor Essential Revisions
  1. Page 8, para 2: Delete on full stop (.).
  2. Figure 2 and 3: In the left column, do not use “adjustment” as a column header but put it on top of the rows with “age and sex” and “multivariate”.

**Level of interest:** An article of outstanding merit and interest 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.