Reviewer's report

Title: Age-related associations of hypertension and diabetes mellitus with chronic kidney disease

Version: 1 Date: 26 January 2009

Reviewer: David Shoham

Reviewer's report:

Summary:
This paper by Islam et al. provides essential information on age-related heterogeneity of factors associated with CKD and albuminuria. The authors pose a clear question: does the strength of association between well-known risk factors for kidney disease differ by age? The methods are appropriate and well-described. The data is based on NHANES 1999-2004, which is a nationally representative probability sample of the non-institutionalized US (what might euphemistically be called a “healthy” sample). These data require the proper analysis, and the authors have used SUDAAN, which is appropriate. Reporting appears appropriate. The discussion and conclusions are well-balanced and supported by the results shown, and integrate these results into the existing literature. Limitations are clear and do not detract from the overall importance of the work, with one exception. In addition to the Rule paper cited, I recommend also considering that there paradoxically may be less bias in the MDRD-based CKD designation among younger people than older ones, since MDRD makes age such a large component of GFR. The authors do make appropriate reference to other work, except that the study of US veterans cited on p.11 should have a reference at the end of the sentence. The title and abstract are appropriate. The writing is acceptable, except that I think the last sentence before the “Implications” section (p.15) should end with “albuminuria at older ages is noteworthy” (the word “ages” is missing).

Major Compulsory Revisions: none needed.

Minor essential revisions:
1. The study of US veterans cited on p.11 should have a reference at the end of the sentence.
2. I think the last sentence before the “Implications” section (p.15) should end with “albuminuria at older ages is noteworthy” (the word “ages” is missing)

Discretionary Revisions:
1. In addition to the Rule paper cited, I recommend also considering that there paradoxically may be less bias in the MDRD-based CKD designation among younger people than older ones, since MDRD makes age such a large component of GFR.
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.