Reviewer's report

Title: Association between blood pressure and decline in renal function and time to start of renal replacement therapy in pre-dialysis patients: a cohort study

Version: 3 Date: 1 June 2011

Reviewer: Nisha Bansal

Reviewer's report:

Major Revisions
1. Is there a difference in rate of progression among those with more eGFR measures versus those with only 2 measures – patients with 3 vs. 9 measures for example will have very different slope estimates. There may be a bias in those who have more eGFR measurements during the follow-up period. Maybe this can be compared in a sensitivity analysis?

2. Do the authors have any information on the previous rate of GFR decline in these patients? If possible, this would be important to adjust for as those who declined more rapidly to this point are more likely to need RRT sooner

3. I would be interested in seeing the results of the sensitivity analysis using a longer duration of follow-up time – the authors state that the results were diluted, but it is not clear what length of follow-up time they used and how their results changed. The short length of follow-up may be an issue. For the patients that started RRT within 1 year, the mean time to RRT was 145 days, suggesting that these patients were sicker when they started pre-dialysis care and blood pressure level may have not have changed their outcome significantly.

Minor Revisions
1. For Table 1, the authors should show the characteristics for the final study population (N=436) rather than the N=508

2. It is unusual that the mean eGFR at the start of dialysis was the same in both the “above” and “below” target groups (8.2 ml/min/1.73m2). Is this correct? When was the eGFR measured in relation to starting dialysis?

3. There was an equal number of PD and HD patients in the study- this may not be generalizable to the U.S. population. This should be included as a limitation in the study.

4. How many patients declined dialysis? Were there any patients who died from uremia? How was this handled in the analysis?

5. It is unusual that the mean eGFR at the start of dialysis was the same in both the “above” and “below” target groups (8.2 ml/min/1.73m2). Is this correct? When was the eGFR measured in relation to starting dialysis?

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.