Reviewer's report

Title: The relationship between mean arterial pressure and decreased glomerular filtration rate

Version: Date: 17 January 2015

Reviewer: Roberto Minutolo

Reviewer's report:

Yang et al evaluated the association between mean arterial pressure (MAP) and reduced GFR in a large sample of general population. Despite the large sample size evaluated and the relatively accurate data collection, the manuscript approaches a very well established association. The lack of originality is the critical negative point of this paper.

Major compulsory revisions

1. Authors stated that “how does the blood pressure affect kidney function and the gender differences remains unclear”. Actually, a lot of studies have evaluated the relationship between BP and renal function, not only in terms of association but also in terms of causality (high BP induces renal damage).

2. The importance of MAP is an old pathophysiologic concept now replaced in clinical studies by systolic BP whose prognostic meaning is much higher than diastolic as well as MAP. Since MAP One can argue that replacing MAP with systolic or diastolic BP you may find a significant association with the systolic component.

3. The association between BP and lower GFR is highly expected since hypertension (present in more than 90% of CKD patients) is a maladaptive response aimed at maintaining external sodium balance.

Level of interest: An article of insufficient interest to warrant publication in a scientific/medical journal

Quality of written English: Needs some language corrections before being published

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