Reviewer's report

Title: The impact of dialysis therapy on elderly patients with advanced chronic kidney disease: a nationwide population-based study

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Reviewer: Paul Komenda

Reviewer's report:

This manuscript reports an observational, retrospective population based study based in Taiwan comparing elderly CKD patients who started dialysis vs those who did not. The primary outcome is mortality and secondary outcome is CKD related costs from the health care payor perspective. The manuscript is well written, the methods are sound and well described and the results clearly presented. This is an important public health question to aid in elderly patient decision making of whether to start dialysis or not. This is the largest cohort to date examining this question and the universal Taiwanese health care system in which nobody is denied care or dialysis based on ability to pay is an ideal setting for this study.

The propensity matched analysis further strengthens this analysis and helps make the case that the signal being observed cannot be explained away by obvious confounders.

Major Revisions

1. The justification for why patients needed to be receiving an ESA to qualify for the study needs further explanation. There are many patients who quite appropriately do not receive ESA’s with late stage CKD. Those who do are likely at higher comorbidity. Is this simply a surrogate for "nephrologist" CKD care?

2. Mortality on dialysis is significantly influenced by timing of dialysis initiation (i.e. starting at lower eGFR is associated with better survival). I recognize the eGFR at dialysis initiation is likely not available using administrative data, but some discussion surrounding this issue as a potential confounder/limitation might enhance the manuscript.

3. I have an issue with dialysis costs being a secondary endpoint. It is a truism that not performing procedures or interventions like dialysis are a less costly option than more intervention. There is nothing novel in this finding and reporting this as an "outcome" of the study seems to detract from the paper's main message of survival. Perhaps costs could be mentioned as an aside, not an "outcome". The obvious opportunity cost here would be the ability to provide more robust palliative CKD care for those not choosing dialysis. This might make the reporting of cost more palatable to the reader.

Minor Revision
p. 16 "among US nursing _____ residents" - forgot home?

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