

Reviewers response

1. **Reviewer's code:** 02454185

This is a comprehensive overview of modality for dialysis before transplantation. I have several comments to improve the paper. 1. "when most of patients initiate hemodialysis (HD) via catheters which is associated with adverse outcomes"---needs expansion to indicate what kind of adverse events. 2. In discussion the meta-analysis, the authors need to clarify the outcome for the assessment of efficacy. different modality can favor different outcome. Readers are confusing on why the 2016 meta-analysis favors "concluded that PD was a better choice of pre-transplant dialysis modality than HD". 3. If tang's meta-analysis included only retrospective studies, the quality is very limited. 4. The authors focused only on retrospective studies; are there randomized controlled trials? or is these ORs adjusted; this is very important because retrospective studies are prone to bias.

Authors' response: Thank you for reviewing the manuscript. The reason we did not expand here about the kind of adverse outcomes because we mentioned this briefly in the line before "avoid intravenous dialysis catheters and concomitant risk of bacteremia." We included Tang et al that published data is mixed, showing different modalities have different outcomes based on what transplant related outcome is being looked at. Unfortunately, only retrospective studies have been performed in an attempt to answer this question. A prospective randomized controlled trial would be ideal to address this question, however clinically difficult to carry out.

2. **Reviewer's code:** 00503233

This is an excellent review over a very controversial topic; I only have a few minor observations: -As it is virtually impossible to set up an RCT vs PD, we have to rely on observational studies which do not allow for definitive conclusion. This limitation should be mentioned in the discussion -Selection bias might apply to PD patients, which are usually more motivated and compliant than HD -Lead time bias might apply to preemptive transplantation -Any information available on home HD?

Authors response; Thank you for reviewing it. We have added this on page 281-285 as we agree with the reviewer that this is an important aspect to mention in the manuscript. There is no data on home HD patients, probably small groups and not long follow up post transplant, hence we did not include in the paper

3. Reviewer's code: 00503182

Please keep the factors evidence-based especially those related to professional bias for selection HD versus PD in USA e.g. incentives of HD units !!!!!

Authors response: Thank you for the response. We have made every effort to present evidence based data in the manuscript. We agree that in some centers that might be the case, but with increasing bundling of the payments, home dialysis programs have similar incentives for the center as incenter treatments.

4. Reviewer's code: 00503260

Jain et al. reported the impact on allograft and recipient outcomes after kidney transplantation comparing peritoneal dialysis (PD) and hemodialysis (HD) as the modality of dialysis. This manuscript is interesting and important, because the summarized review is rare to compare dialysis modality before kidney transplantation. However, some concerns have been raised. (1) The authors indicated lower rates of delayed graft function (DGF) in PD patients compared with HD patients. However, almost all the papers are reported before 2000. As the authors know, the methods of kidney transplantation including immunosuppressive drugs are dramatically changed during 10 to 20 years. Therefore, the authors should indicate more recent evidences about DGF. (2) The authors indicated that thrombotic events in PD patients before kidney transplantation are more common compared with those in HD patients. As the reason, the authors showed that PD patients have increased pro-coagulant factors. However, they did not indicate why pro-coagulant factors increase in PD patients. The authors should indicate the reasons. (3) It is controversial whether dialysis modality influences development of post-transplant diabetes mellitus or not. The authors should

indicate the reasons. (4) The authors indicated that mortality benefits in PD patients are seen dependent on cardiovascular mortality. On the other hand, there are many studies reported that survival benefits of PD over HD were not found. The authors should indicate why the mortality benefits in PD patients are controversial.

Authors response: *Thank you for reviewing the manuscript and providing valuable comments. I have added lines 175-176 on page 8. We agree that most studies about DGF as older, most recent study in our literature review is in from early 2000s.*

We have added appropriate lines from 207-210 to address (2).

We have added appropriate line from 237-240 to address (3).

We have added appropriate lines from 281-285 to address (4)

5. **Reviewer's code:** 00503286

The work "CHOICE OF DIALYSIS MODALITY PRIOR TO KIDNEY TRANSPLANTATION: DOES IT MATTER?" should be published in this journal, after minor corrections with the editor. In the other hand, some figures, diagrams or images were welcome!

Authors response *Thank you for the response.*

6. **Reviewer's code:** 00504316

This is a well-written review paper containing systemically-integrated summary and clear discussion which merit publication. It will be of clinical benefit to American patients who have to make a choice between PD and HD before kidney transplantation. When described the results of "citation 25", what should be also showed are the mortality data of the patients initiating RRT with HD in order to understand the subsequent comparison between PD and HD.

Authors response: *Thank you for reviewing the paper, we have added the RRT with HD data in line 117-121.*

7. Reviewer's code: 00502999

This review article by Jain et al is about HD vs PD as the preferred RRT approach to kidney transplant patients. Major issues: The manuscript has to follow WJN guidelines: There is no Core Tip, the Tables are not located correctly in the manuscript, do not follow the format, as neither references do. Abstract: Sixth line: Replace "chose". Wrong tense and semantics according to the message of the paper. Introduction: At first, please comment on the prevalence of CKD among the worldwide population (10%) Address after first paragraph how dialysis impact on graft survival vs preemptive transplantation. The second paragraph of this section has to be redone: "In the 2015..." is wrong. The fourth sentence is confusing at all. Replace waitlist by waiting list. Third paragraph was to be redone as well. Replace bacteriemia by infections. "Hence, for patients who are planning to receive a transplant..." is better than what is written. The authors do not comment in this section about the benefits of a better preserved residual urinary output for PD patients vs HD ones. Last sentence of this paragraph: Replace didn't by did not (it also appears in other parts of the manuscript). The controversies described by the authors are not discussed. One of the main differences between both modalities is biased on the time elapsed from the start of either PD or HD and the transplant. The longer the time in waiting list, the worse the prognosis of the graft, probably independently of the dialysis method employed. Please, address and discuss, not just describe. Make the manuscript critical. The topic about thrombosis is non-conclusive, too long and leads nowhere. What is the role of HD catheters, antiheparin antibodies and the risk of thrombosis?. What can authors add about chronic hemodiafiltration vs conventional HD vs PD impact on grafts?. Is chronic hemodiafiltration a better option when related to kidney transplant prognosis? The manuscript requires major polishing of the English language.

Authors response: Thank you for the response. We have made the necessary language changes as suggested by the reviewer above. In line 23.

See line 45-57, we have made changes as suggested by the reviewer

All grammatical changes as suggested have been done

Hemodiafiltration is a modality not studied enough and reported in the literature for transplant related outcomes. This is an excellent suggestion which we completely agree, however on literature search we did not find much evidence published on this.

8. Reviewer's code: 02889203

This is a good paper. The authors should add the metabolic disorders including metabolic acidosis as a difference between PD and HD related to DGF or cardiovascular mortality after transplantation. The authors outlined the importance of the preservation of residual renal function and this is good.

Authors response Thank you for the response.