PEER REVIEW HISTORY

ARTICLE DETAILS

TITLE (PROVISIONAL)	Accessibility and quality of haemodialysis services in an urban setting in South India: a qualitative multi-perspective study
AUTHORS	Elias, Maya; Van Damme, Wim; Wouters, Edwin

VERSION 1 – REVIEW

REVIEWER	Suresh, Aneena JSS Academy of Higher Education and Research
REVIEW RETURNED	12-May-2021

GENERAL COMMENTS	1.Line 19- Abstract The abbreviation CKD is not expanded. As its used for the first time, full form should be given. 2. Since the study assess the accessibility and quality of haemodialysis services, its applicable to end stage renal disease, so instead of chronic kidney disease, end stage renal disease can be mentioned throughout the study. 3.Line 10- Introduction. Expand LMICs. 4. Table 1- Please mention the unit of GFR. 5. Please mention the study design in methods. 6. Line 56- Results - please correct the spelling mistake. 7. After abstract the study strengths and limitations are mentioned in a box. This is not matching with the limitations mentioned in the main text for example: the authors couldn't get patients undergoing haemodialysis from private hospitals.

REVIEWER	Murea, Mariana Wake Forest Baptist Medical Center
REVIEW RETURNED	09-Jul-2021

GENERAL COMMENTS	With this manuscript, the authors aimed to describe the current care of patients with ESKD in India. The objective is important. A few major comments: 1. Results are presented in a free descriptive form and the manuscript does not offer enough profundity into the many aspects of insufficient ESKD care in India. While it is understood that this is a qualitative study, the authors would need to be more specific about the information produced with their study. For example, the authors relay their results with words such as “most dialysis centers” “many patients” “patients usually don’t miss dialysis” “a few patients were coming from….” 2. Another example: “All centers in the Government and NGO sector had a high patient load and a long waiting list”. What does that mean? What is a “high patient load” and “long waiting list”; and compared to what? 3. “Some dialysis centers had to add additional shift” – again, very vague. How many centers (%)? How often did they add additional shift? What determine addition of an extra shift? 4. “A few private centers had laboratories attached” – vague

	5. “A few centers had duty doctors and visiting nephrologists (once in two weeks or for emergencies)” what is ‘a few centers’ ? what is the difference between duty doctors and visiting nephrologists? 6. Importantly, the authors do not discuss whether there is any policy in India regarding the frequency of ESKD patient evaluation by a Nephrologist; and whether the policy is followed. 7. Moreover, the authors interviewed dialysis technicians and patients. Nephrologists were not interviewed regarding: Quality of care for Choice of methods, Information given to the patients, Interpersonal relations, and Mechanisms to ensure follow-up and continuity. 8. What is exactly “patients usually did not miss dialysis sessions”? 9. What is the importance of the following sentence “Patients were advised not to travel for more than two days, in order not to miss dialysis” unless further explained the significance of this recommendation 10. ‘A few of them had duty doctors, only two centres had the presence of a nephrologist in the premises.’ What is a few and How often were the doctors present? 11. What is exactly ‘sub-standard water purifiers, and other equipment including dialysers and tubes.’ 12. “Most centres used a dialyser for ten dialysis sessions and a few centres reused the tubes as well” were the reuses for the same patient or even between different patients? 13. “Technicians and duty doctors reported that they commonly saw infections such as Hepatitis C (HCV) and Hepatitis B (HBV) among patients” Again, this is very important to be specified; what is “commonly saw infections”? what is the incidence of new infections with HCV, HBV or HIV in ESKD patients that is attributed to current care in India? 14. The conclusion: “The study points towards the need for improving awareness, and early detection of CKD among urban communities and the need for comprehensive management practices.” does not fit the study. The study highlights extreme societal poverty. A more proper conclusion would be that major financial and personnel investments in ESKD network need to occur in India given deep suboptimal care of these patients. Early detection of CKD is also limited by finances and the reality is that the ESKD population will continue to grow, even if it is assumed finances for early CKD detection are for some reasons better. Minor comments: 1. Table 1: Definition and classification of CKD(10) is not necessary and does not pertain to the objective of this study 2. Provide the ‘World Health Organisation’s Availability, Accessibility, Acceptability and Quality (AAAQ) framework’ and the ‘Bruce’s Quality of Care framework’ in Supplementary material 3. Abbreviations need to be spelled out first 4. What is INR?

REVIEWER	Clark, David Nova Scotia Health Authority
REVIEW RETURNED	16-Jul-2021

GENERAL COMMENTS	Accessibility and quality of haemodialysis services in an urban setting in South India: a qualitative multi-perspective study Summary: Elias et al. report important issues regarding sub-optimal accessibility and quality of hemodialysis services in an urban region of South India, using a qualitative, multi-perspective study

	approach & thematic analysis of semi structured interviews based on pre-existing frameworks. At first glance, the reported results and conclusions of this study are provocative and have implications for future research & policy. However, my main concern of this study/manuscript is the current interpretation and clarity of communication of certain results which probably stems from the lack of study contributorship by an individual with expertise in nephrology (and hemodialysis care). For example, Non-Discrimination (accessibility for all patients) Page 8: “The stand-alone dialysis centres did not have the capacity to take care of emergencies, so they didn’t admit patients with comorbid heart or lung-related conditions or other complications. Patients who needed emergency care had depended on higher-level centres either in private or government, depending on their financial condition. Here they say that they can’t take out more than 3 litres of water [during dialysis], but when I was going to [private centre name], they used to take out 5 litres. And if I get wheezing, then I have to go to another hospital for that. So, I was not coming here.(Patient_Government).” This approach to the delivery of hemodialysis services (stand alone centers being unable to accommodate patients who are not medically stable, and thus requiring such care in ‘higher level’ centers) does align with the delivery-structure of hemodialysis services in other nations. The disparity which should be highlighted is the lack of sufficient access to ‘higher-level centers’ and not necessarily the capabilities of stand-alone centres – which is how this section currently can be interpreted based on the written text and included patient comment.” Given the substantial impact for healthy policy/care delivery reforms, as well as future research, contributorship (including analyses and writing) by a content expert in nephrology (preferably an individual with an in-depth knowledge of hemodialysis in the study region) to ensure accuracy is advised. Minor: - The studied population: prevalent patients with end stage kidney disease receiving hemodialysis, which is a subset of the CKD spectrum. Major conclusions from this study apply to this subset of patients and not necessarily the entire spectrum of CKD as it is currently written (including the abstract). - Define LMIC (page 4 of 9), line 10 - Page 3, Line 40-42: access – Patients also complete HD with a line access. Clarify the practice in the centers included in this study. Other published reports of HD access in India dialysis centers includes line access option. - Page 5, Line 6: Details of the dialysis centres – check list; consider supplementary table to summarize characteristics - Page 5, Line 7: Include Definition of duty doctor - Page 5, Line 11: Who conducted the interviews? Over what time-period? - Page 5, Table 2: No nephrologists at the government and non-governmental institutions (foot note) Should clarify if there are nephrologists who practice at these institutions or not. - Page 6 – Line 21/22 Suggest rewording: “Most of them offered 3 shifts/day and were open six days a week (which at maximum capacity equals 18 dialysis treatment sessions per week, supporting a 3x per week prescription for up to 6 patients).”

VERSION 1 – AUTHOR RESPONSE

Reviewer: 1
Dr. Aneena Suresh, JSS Academy of Higher Education and Research
1.Line 19- Abstract. The abbreviation CKD is not expanded. As it is used for the first time, full form should be given.
R/ Thank you for pointing this out. Owing to another suggestion given by you, the term CKD has been taken out and been replaced by End Stage Renal Disease in Abstract. (please refer to the response to the next comment).
2. Since the study assess the accessibility and quality of haemodialysis services, its applicable to end stage renal disease, so instead of chronic kidney disease, end stage renal disease can be mentioned throughout the study.
R/ Thank you for this comment. The authors agree that it is better to stick to ESRD and dialysis care and not to use CKD and ESRD interchangeably. We have incorporated the suggestion and the text is revised accordingly throughout the manuscript.
3.Line 10- Introduction. Expand LMICs.
R/ Expansion of LMIC added (page 3, line 4)
4. Table 1- Please mention the unit of GFR.
R/ The table is removed as per the suggestion given by the editor.
5. Please mention the study design in methods.
R/ Thank you for mentioning this. In the method section, the study design is added as below
Page 5, lines 12-13 reads as below:
Study Design
With an objective of producing in-depth knowledge on the accessibility and quality of dialysis care in India, a qualitative research design (using thematic analysis) was employed for the study.
6. Line 56- Results - please correct the spelling mistake.
R/ Corrected.
7. After abstract the study strengths and limitations are mentioned in a box. This is not matching with the limitations mentioned in the main text for example: the authors couldn't get patients undergoing haemodialysis from private hospitals.
R/ Thank you for the comment, we have now edited the summary box reflecting the points mentioned in the main text.
Reviewer: 2
Dr. Mariana Murea, Wake Forest Baptist Medical Center
1. Results are presented in a free descriptive form and the manuscript does not offer enough profundity into the many aspects of insufficient ESKD care in India. While it is understood that this is a qualitative study, the authors would need to be more specific about the information produced with their study. For example, the authors relay their results with words such as “most dialysis centers” “many patients” “patients usually don’t miss dialysis” “a few patients were coming from….”
R/ Thank you for this comment. The authors agree that the previous version of the manuscript did not offer as much depth as was possible. We have tried to incorporate the suggestion and have provided the numbers wherever possible. The text read as below:
Page 7, lines 20-25- Six private dialysis centres which were attached to bigger hospitals had laboratory facilities in the premises. The centres, irrespective of the settings were mostly managed by dialysis technicians and nursing staff; duty doctors were present in seven private centres, two Government centres and one NGO centre. Only two centres in private had nephrologists at the time of visit, other centres reported that they have a visiting nephrologist, who is ‘on call’.
Page 7, lines 30-32 - All centres in the Government and NGO sector were run at full capacity. Technicians across settings reported of increase in patient numbers over the years. Technicians from four dialysis centres in private and 2 centres in NGO sector reported of starting additional shifts in the last two years.
2. Another example: “All centers in the Government and NGO sector had a high patient load and a long waiting list”. What does that mean? What is a “high patient load” and “long waiting list”; and compared to what?
R/ Thank you for this comment, now the text is revised which spells out what is meant by the long waiting list and has specified the waiting period.
Page 8, lines 14-18-While the private centres received occasional enquiries of new patients, all

Government and NGO run centres visited had more than ten patients waiting to be enrolled, and the waiting period was approximately between three to six months. When there was a vacancy, patients coming with staff or local political leaders' recommendations were given priority for admission.

3. "Some dialysis centers had to add additional shift" – again, very vague. How many centers (%)? How often did they add additional shift? What determine addition of an extra shift?

R/ We did not mention the percentages as the sample size was small. However we have now provided the number of centres which reported of adding additional shift.

Additional shifts are added by the dialysis centres usually when they have enough staff members to work on the extra hours and they have reached enough number of patients patients to occupy all the machines available. The text has been revised and an additional quote has been given to clarify this point. The text now reads (page 7-8)

All centres in the Government and NGO sector were run at full capacity. Technicians across settings reported of increase in patient numbers over the years. Technicians from four dialysis centres in private and 2 centres in NGO sector reported of starting additional shifts in the last two years.

Stand-alone centres do three shifts usually, centres part of larger chains such as [centre name], have started night shifts too. The Government run centres usually do not have enough manpower and other supplies to run extra shifts. (Nephrologist_Private)

4. "A few private centers had laboratories attached" – vague

R/ Thank you for pointing this out. The text is now revised.

Page 7, lines 20-21 - Six private dialysis centres which were attached to bigger hospitals had laboratory facilities in the premises.

5. "A few centers had duty doctors and visiting nephrologists (once in two weeks or for emergencies)" what is 'a few centers' ? what is the difference between duty doctors and visiting nephrologists?

R/ Thank you for this comment, the text has been revised with specific numbers of centres. Duty doctors are fresh MBBS graduates without any training in nephrology. This definition is added as a footnote on page number 5. The text now revised accordingly.

Page7, lines 21-25. The centres, irrespective of the settings were mostly managed by dialysis technicians and nursing staff; duty doctors were present in seven private centres, two Government centres and one NGO centre. Only two centres in private had nephrologists at the time of visit, other centres reported that they have a visiting nephrologist, who is 'on call'.

6. Importantly, the authors do not discuss whether there is any policy in India regarding the frequency of ESKD patient evaluation by a Nephrologist; and whether the policy is followed.

R/ We appreciate this important observation.

The guidelines issued by the federal Government mandates that a dialysis centre should be headed by a nephrologist. Similarly, the Indian Society of Nephrologists, in their guidelines, states that a nephrologist should be part of the regular staff. However, in India, there is an acute shortage of nephrologists, there are only about 2000-2600 nephrologists in India, which is approximately 1.9 per million population. And keeping nephrologists would cost the centres much more financially, compared to appointing MBBS doctors, so the dialysis centres usually appoint nephrologists only as consultants, either on call for emergencies or a monthly visit to the centre. Also, currntly there are no governance mechanisms to ensure the guidelines are implemented. This is mentioned in the discussion section as given below:

Page 14, lines 16-22- Though the National guidelines and the guidelines issued by the Indian Society of Nephrologists recommend that nephrologists must be part of regular staff in the haemodialysis centres, the centres are managed solely by dialysis technicians and from our respondents' accounts, it appears that the quality of their training is variable. If technicians would be capable of identifying the early warning signs, many of the complications could be averted, including problems with fistula(37).

7. Moreover, the authors interviewed dialysis technicians and patients. Nephrologists were not interviewed regarding: Quality of care for Choice of methods, Information given to the patients, Interpersonal relations, and Mechanisms to ensure follow-up and continuity.

R/ Thank you very much for sharing this important observation. Due to the word limit, the quotes were not added earlier, but the authors have reflected on the importance of including the nephrologist viewpoints. The text is now revised accordingly. The following text and quotes have been added to demonstrate nephrologist views.

Choice of methods- Page 10 lines 22-24
PD has to be done 27/7, and here it is not very practical, also you need the presence of someone to assist. Patients housing and other conditions are not very suitable for PD in our setting. So, PD is slowly going of practice here (Nephrologist, private)
Information given to clients- Page 11, lines 1-4
Most patients will present with symptoms of renal failure, and when we do the examinations, many will have uncontrolled diabetes or hypertension. When we ask the patients why they did not take medicines, they say we did not know (Nephrologist, private)
Interpersonal relations Page 11, lines 16-19- A nephrologist observed that in Government and NGO run centres, patients had more opportunities to interact with other patients, and in Private centres, most patients would arrive at their fixed timing for the dialysis and their interactions are usually limited to the staff and maximum to the patients who occupy the next bed.
8. What is exactly “patients usually did not miss dialysis sessions”?
We have edited the text clarifying this point.
R/ Page 11, 21-22- Technicians and duty doctors from the NGO run centres reported that patients regularly attended their scheduled dialysis sessions, since it was free or subsidised.
9. What is the importance of the following sentence “Patients were advised not to travel for more than two days, in order not to miss dialysis” unless further explained the significance of this recommendation.
R/ Thank you. As per the respondent accounts, when the patients travel out of station for more than two days, then they either have to skip a dialysis session or they have to find another centre locally for the dialysis. If they skip the session, then patients may face complications due to water retention and if they do dialysis for an unknown centre, there is a risk of infections. So, patients are advised not to travel for more than 2 days , not to miss dialysis and to get it done from the same centre.
Text slightly modified on page 11, lines 22-25 - Patients were advised not to travel for more than two days. When patients had to travel to far-off places or for longer duration, either they must skip a scheduled dialysis, or they must enrol in a local dialysis centre. Staff shared that this is one common reason for infections.
10. ‘A few of them had duty doctors, only two centres had the presence of a nephrologist in the premises.’ What is a few and How often were the doctors present?
R/ The text has been modified.
Page 12, lines 25-26- All the visited centres, irrespective of the sectors, were mainly managed by dialysis technicians. Seven centres had duty doctors, only two centres had full time nephrologists.
11. What is exactly ‘sub-standard water purifiers, and other equipment including dialysers and tubes.’
R/ Substandard water purifiers and other equipment are those available in the market which is made of lower quality materials. Water quality check is not performed regularly and there is no monitoring mechanism to ensure the water quality. Other studies have pointed out this as well. A quote has been added which highlights this point.
Page 12, line 20-22- “The water quality is very important; centres are supposed to have monthly water test to make sure the bacteria and toxic elements are controlled. But it costs about 4000-5000 rupees to do it, so most centres don’t do it monthly.”(Nephrologist_Private)
12. “Most centres used a dialyser for ten dialysis sessions and a few centres reused the tubes as well” were the reuses for the same patient or even between different patients?
R/ The dialysers and tubes are used for the same patients. This has been specified in the main text- page 13, line 10.
13. “Technicians and duty doctors reported that they commonly saw infections such as Hepatitis C (HCV) and Hepatitis B (HBV) among patients” Again, this is very important to be specified; what is “commonly saw infections”? what is the incidence of new infections with HCV, HBV or HIV in ESKD patients that is attributed to current care in India?
It was not juxtaposed with any dialysis centre records; however, earlier studies have shown higher incidence of HBV and HCV among patients undergoing dialysis (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4780172/)
A recent study from India reported 26% of HCV infection and the rate with HBV was 1.8% (https://onlinelibrary.wiley.com/doi/pdf/10.1002/mbo3.1147) There have been other studies as well reporting similar findings.

14. The conclusion: “The study points towards the need for improving awareness, and early detection of CKD among urban communities and the need for comprehensive management practices.” does not fit the study. The study highlights extreme societal poverty. A more proper conclusion would be that major financial and personnel investments in ESKD network need to occur in India given deep suboptimal care of these patients. Early detection of CKD is also limited by finances and the reality is that the ESKD population will continue to grow, even if it is assumed finances for early CKD detection are for some reasons better.
R/ Thank you for this important suggestion, his has been added in the abstract as well as in the main text.
Page 15, line 20-22. The study highlights the need for more financial and personnel investments in ESRD care in India to ensure optimal care for the growing patient population.
Minor comments:
1. Table 1: Definition and classification of CKD(10) is not necessary and does not pertain to the objective of this study
R/ Thank you. The table has been removed.
2. Provide the ‘World Health Organisation’s Availability, Accessibility, Acceptability and Quality (AAAQ) framework’ and the ‘Bruce’s Quality of Care framework’ in Supplementary material
R/ Added as supplementary files 2&3
3. Abbreviations need to be spelled out first.
R/ Thank you. All abbreviations used in the manuscript have been revised.
4. What is INR?
R/ INR stands for Indian Rupee, it has been added as a footnote on page 4.
Reviewer: 3
Dr. David Clark, Nova Scotia Health Authority
At first glance, the reported results and conclusions of this study are provocative and have implications for future research & policy. However, my main concern of this study/manuscript is the current interpretation and clarity of communication of certain results which probably stems from the lack of study contributorship by an individual with expertise in nephrology (and hemodialysis care). For example, Non-Discrimination (accessibility for all patients) Page 8: “The stand-alone dialysis centres did not have the capacity to take care of emergencies, so they didn’t admit patients with comorbid heart or lung-related conditions or other complications. Patients who needed emergency care had depended on higher-level centres either in private or government, depending on their financial condition. Here they say that they can’t take out more than 3 litres of water [during dialysis], but when I was going to [private centre name], they used to take out 5 litres. And if I get wheezing, then I have to go to another hospital for that. So, I was not coming here.(Patient_Government).” This approach to the delivery of hemodialysis services (stand-alone centres being unable to accommodate patients who are not medically stable, and thus requiring such care in ‘higher level’ centers) does align with the delivery-structure of hemodialysis services in other nations. The disparity which should be highlighted is the lack of sufficient access to ‘higherlevel centers’ and not necessarily the capabilities of stand-alone centres – which is how this section currently can be interpreted based on the written text and included patient comment.” Given the substantial impact for healthy policy/care delivery reforms, as well as future research, contributorship (including analyses and writing) by a content expert in nephrology (preferably an individual with an in-depth knowledge of hemodialysis in the study region) to ensure accuracy is advised.
R/ Thank you very much for this comment. Authors would like to clarify that a Bangalore based nephrologist was consulted at various stages of the study. His inputs have helped the authors to make the right interpretation of data. He assured that we have captured the right information regarding ESRD care and dialysis in Bangalore, but since that he was also an interview participant for the study and was not involved in writing the paper, we could not include him as an author. However, the authors have made a note of the suggestion, the quote has been removed, in discussion section the text has been slightly revised:
Page 14, line 8-12 reads - Patients with any comorbid conditions and other complications need to depend on higher centres with emergency facilities, which are too few in numbers, especially in public sector. The private hospitals can cater to only a subsection of ESRD patients, who can afford their services So, patients end up shuttling between centres in different settings depending on their illness status and paying capacity.
Minor:

- The studied population: prevalent patients with end stage kidney disease receiving hemodialysis, which is a subset of the CKD spectrum. Major conclusions from this study apply to this subset of patients and not necessarily the entire spectrum of CKD as it is currently written (including the abstract).
R/ Thank you for sharing this observation. We have taken a note of this and this has been added as a limitation of the study, both in abstract and main text. Page 15, lines 14-16.
- Define LMIC (page 4 of 9), line 10
R/ This has been expanded.
- Page 3, Line 40-42: access – Patients also complete HD with a line access. Clarify the practice in the centers included in this study. Other published reports of HD access in India dialysis centers includes line access option.
R/ Thank you very much for this comment. Authors have taken a note of this, and now the text is revised as per the suggestion.
Page 3, lines 19-24- Once the patient is advised to undergo haemodialysis, a central venous catheter or an arteriovenous fistula is created as an entry point for haemodialysis. To insert the central venous catheter, a small incision is made in the skin over the selected vein located in the neck, upper chest, or groin. The fistula is created between two blood vessels in the patient's arm through a small surgical procedure. In India, most patients undergo emergency haemodialysis(13), a line access using a catheter is created and later patients are advised to switch to the arteriovenous fistula.
- Page 5, Line 6: Details of the dialysis centres – check list; consider supplementary table to summarize characteristics.
R/ Thank you for this suggestion. A table with the details of the centres visited is added as supplementary file 1.
- Page 5, Line 7: Include Definition of duty doctor.
R/ Duty doctors are fresh MBBS graduates without any training in nephrology. This definition is added as a footnote on page number 5.
- Page 5, Line 11: Who conducted the interviews? Over what time-period?
R/ Thank you for this query, we have now added it in the method section.
Page 6, lines 4-6 - These interviews were conducted between September to December 2020 by the first author, who is an experienced qualitative researcher.
- Page 5, Table 2: No nephrologists at the government and non-governmental institutions (foot note) Should clarify if there are nephrologists who practice at these institutions or not.
R/ Thank you for this comment. It is given in page 7, lines 23-25- Only two centres in private had nephrologists at the time of visit, other centres reported that they have a visiting nephrologist, who is 'on call'.
- Page 6 – Line 21/22 Suggest rewording: "Most of them offered 3 shifts/day and were open six days a week (which at maximum capacity equals 18 dialysis treatment sessions per week, supporting a 3x per week prescription for up to 6 patients)."
R/ Thank you for this suggestion, the text is now revised accordingly:
Page 7, lines 14-16- Most of them offered 3 shifts/day and were open six days a week (which at maximum capacity equals 18 dialysis treatment sessions per week, supporting a 3x per week prescription for up to 6 patients).

VERSION 2 – REVIEW

REVIEWER	Murea, Mariana Wake Forest Baptist Medical Center
REVIEW RETURNED	20-Sep-2021

GENERAL COMMENTS	The revised manuscript has improved delivery. The design constrictions and the limitations of the study, however, are inherently present.

REVIEWER	Clark, David Nova Scotia Health Authority
REVIEW RETURNED	05-Oct-2021

GENERAL COMMENTS	Accessibility and quality of haemodialysis services in an urban setting in South India: a qualitative multi-perspective study Summary: Elias et al. report important issues regarding sub-optimal accessibility and quality of hemodialysis services in an urban region of South India, using a qualitative, multi-perspective study approach & thematic analysis of semi structured interviews based on pre-existing frameworks. Review: I have reviewed the revised manuscript as well as the authors' responses to the original comments from both myself and other peer-reviewers. Overall, the author's responses as well as edits/adjustments are satisfactory. Minor: • Suggest only using the term End Stage Kidney Disease (ESKD) instead of End Stage Renal Disease (ESRD). Both terms are currently present in the manuscript. • Page 3: Lines 13-15: - "Though the progression of CKD is usually slow(9), end-stage renal disease (ESRD) patient needs renal replacement therapy (RRT), an artificial process used to remove water, electrolytes and waste substances from the blood". Unclear statement/sentence. Suggest revision to clarify 'connecting' concepts of End Stage Kidney Disease as a substage of Chronic Kidney Disease, and the option of renal replacement therapy for patients with End Stage Kidney Disease. • Page 6: Lines 32 - "The common services include haemodialysis supply of medicines/ and other nutritional supplements ". Unclear statement/sentence – revise. • Page 9: Line 37 "PD has to be done 27/7, and here". Error? Should this read 24/7

VERSION 2 – AUTHOR RESPONSE

Reviewer 3:

Minor:

• Suggest only using the term End Stage Kidney Disease (ESKD) instead of End Stage Renal Disease (ESRD). Both terms are currently present in the manuscript.

R/ Thank you for pointing this out. The term End Stage Renal Disease (ESRD) has been replaced by End Stage Kidney Disease (ESKD) throughout the manuscript.

• Page 3: Lines 13-15: - "Though the progression of CKD is usually slow(9), end-stage renal disease (ESRD) patient needs renal replacement therapy (RRT), an artificial process used to remove water, electrolytes and waste substances from the blood". Unclear statement/sentence. Suggest revision to clarify 'connecting' concepts of End Stage Kidney Disease as a substage of Chronic Kidney Disease, and the option of renal replacement therapy for patients with End Stage Kidney Disease.

R/ Thank you for this comment. We have now revised the sentence. The revision reads- "The progression of CKD is usually slow(9), but when the patient reaches the most advanced stage of illness, i.e. end-stage kidney disease (ESKD), the kidney functioning is damaged to the extent that the patient needs a renal replacement therapy (RRT), an artificial process used to remove water, electrolytes and waste substances from the blood. (page 3: lines 11-14)

- Page 6: Lines 32 - “The common services include haemodialysis supply of medicines/ and other nutritional supplements “. Unclear statement/sentence – revise.

R/ Thank you- the text is now revised to - The common services include haemodialysis, and supply of medicines and other nutritional supplements. Page 7: lines 18-19

- Page 9: Line 37 “PD has to be done 27/7, and here”. Error? Should this read 24/7

R/ Thank you for pointing this out. It was a typo, now corrected to 24/7.

Text now reads- PD has to be done 24/7, and here it is not very practical. (Page 10: line 22)