PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	Which factors determine treatment choices in patients with advanced kidney failure? A protocol for a co-productive, mixed methods study
AUTHORS	Roberts, Gareth; Chess, James; Howells, Teri; Mc Laughlin, Leah; Williams, Gail; Charles, Joanna; Dallimore, D; Edwards, Rhiannon; Noyes, Jane

VERSION 1 – REVIEW

REVIEWER	Rachael Morton NHMRC Clinical Trials Centre, The University of Sydney
REVIEW RETURNED	06-Jun-2019

GENERAL COMMENTS	This protocol paper outlines a mixed methods study of factors influencing patients' decisions for dialysis modality. It is well written. The protocol paper would be improved with attention to the following points: - In the abstract more description is needed for the study design, especially of the quantitative component? - i.e. is it a cohort study or cross-sectional? - Please review whether this statement is substantiated: "There is a limited economic evidence base of kidney dialysis; therefore, this study addresses a knowledge gap in the literature." Page 4, line 12. There are multiple evaluations and even systematic reviews of economic evidence of dialysis. Do the authors mean for Wales specifically? or economic evidence that includes comparisons of unit dialysis and home dialysis with supportive non-dialytic care? -The Introduction implies that factors leading patients to choose UHD will be compared within the context of transplantation and supportive care modalities. -Patient education materials are only one way patients receive information about their options. Learning from other patients, and verbal discussions with health professionals form a key part of education. By focusing only on documents that can be collected and subjected to content analysis, you will likely miss a lot of the education. Do patients read these documents? -For clarity - which version of EQ-5D will be used in SAIL? What is the justification for this preference-based measure compared to others that may be more sensitive to changes in kidney disease and care? -You may want to narrow the focus and scope of your rapid review of economic evidence of costs of dialysis models (e.g. UK; or models that include comparisons of UHD to home / PD and supportive non-dialytic care).

	-The outcomes in the cost-consequence analysis are a little confusing (page 10, line 9). It appears that outcomes are really healthcare resource use and therefore costs? Will QoL be counted as an outcome? What about survival or QALYs? - Disappointing to see that supportive care and transplant treatment modalities are excluded. Why is this? -The included patient population is unclear. Prevalent patients, incident dialysis patients, or CKD (pre-dialysis patients being included)? -How will the interview and focus group data inform the health economics modelling? (Figure 1 - Project Plan). -Are there several discrete projects in this protocol - or one cohort that is being recruited and built using VitalData, in which a sub-sample will be participating in qualitative interviews/focus groups; and another sub-sample will have SAIL data extracted? - Figure 5 - Recruitment process looks generic, and would be better if it were customised to this project. -How will you assess unconscious biases from professional interviews? Page 12, line 3. - Page 11, line 8: "The focus groups and interviews will explore the values, preferences, experiences and expectations and anticipated outcomes from a professional perspective" - With respect to what exactly? "These focus groups and interviews will also help put emerging findings from the patient and carer interviews into context and contribute to the process of data integration and data analysis." Can you explain this further? Minor comments: -What are "standardised protocols" c.f. patient recruitment and consent? Do you mean a standard template participant information sheet / consent form approved by an ethics committee? -Please enlarge the arrow heads in Fig 1 - it is difficult to understand how each research component informs the other.

REVIEWER	Marcus Sellars Austin Health, Melbourne, Australia
REVIEW RETURNED	26-Jun-2019

GENERAL COMMENTS	This protocol is well-written and addresses an important gap in the literature. Some thoughts for your consideration below. Health economics study. - It may be worth further justifying why a cost-consequence analysis is considered more appropriate than a cost-effectiveness analysis. The National Institute for Health and Care Excellence (NICE) guidelines might help you here i.e. is there a lack of a clear comparator? - Will all data be reported in accordance with Consolidated Health Economic Evaluation Reporting Standards (CHEERS) statement? Qualitative interviews. - The authors will conduct at least 40 patients and 40 unpaid caregivers. Will participants be purposively sampled to ensure a wide range of perspectives and experiences? - Also, will data collection continue until data saturation is reached?

	- Given the emphasis on co-production in the current study, will the authors consider using Member Checking (i.e. giving participants an oppurtunity to provide feedback on the themes) in this study?

VERSION 1 – AUTHOR RESPONSE

Responses to Reviewer 1:

- We have clarified the study design in the abstract.
- Regarding the statement "There is a limited economic evidence base of kidney dialysis; therefore, this study addresses a knowledge gap in the literature." we are referring to the lack of economic evidence in this field. There are very few economic evaluations that compare different dialysis modalities. The evidence available is rather old in terms of its publication date and there are very few UK studies available, which limits the relevance and generalisability of findings to the UK, and specifically Wales. We have added some clarification to this end.
- We have added a sentence about the study focussing on unit vs home dialysis for clarification in the introduction.
- We have made a slight change to the section 'Patient Education' to make it clear that we're looking at both education materials and procedures for educating patients.
- We have added that it will be EQ-5D-5L used in SAIL.
- Regarding the scope of the health economics review, we thank the reviewer for this comment, and will take this advice on board. For information, the SAIL databank captures healthcare resource use in a more comprehensive manner, which is why we chose to explore service use. However, we will have multiple service use to explore from primary to secondary care. EQ-5D-5L data is stored in SAIL, but the extent to which this data will be available is currently unknown, as not all patients have a completed EQ-5D-5L questionnaire on their records. Therefore, one of our research questions is to explore the availability of EQ-5D data. If there is sufficient data then QoL will be included as an outcome in the cost-consequence analysis.
- We have clarified the included patient population / cohort throughout the manuscript.
- In response to comments about the recruitment process, while following good ethical practice, the process has been carefully tailored to this study to ensure patient confidentiality and separation between clinicians and recruitment to the study.
- We have added clarification around assessing unconscious biases in professionals and added further information about how this data and the patient and carer interview data will be integrated.
- We have amended Figure 1

Responses to Reviewer 2:
Health economics study

- We thank the reviewer for these comments. The study will use anonymised data held in the SAIL databank rather than an RCT format. Given the multiple forms of dialysis and the fact we can gather multiple outcomes in terms of health service use and potentially quality of life data, we felt a cost-consequence analysis was more appropriate.
- Yes, the health economics analysis will be reported in accordance with the CHEERS statement.

Qualitative interviews

- We have added some clarification to the methods regarding sampling.
- As set out in the section on co-production we will be sharing interim findings with participants around emerging themes, therefore enabling member checking.

VERSION 2 – REVIEW

REVIEWER	Marcus Sellars Austin Health, Australia
REVIEW RETURNED	27-Aug-2019

GENERAL COMMENTS	I believe the authors have sufficiently adressed the concerns raised.