A Pilot Study of *A Guide to Conservative Care*

Funding Agency: National Palliative Care Research Center

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Abstract

Objective(s) and Hypotheses:
Although dialysis is commonly regarded as a life-prolonging therapy for advanced chronic kidney disease (CKD), there is growing recognition that dialysis is not always beneficial. Conservative care is an important therapeutic alternative for patients who do not wish to pursue dialysis for their advanced CKD. This study aims to test the acceptability and feasibility of a novel decision aid), *A Guide to Conservative Care*, describing conservative care created by the principal investigator (PI, Wong). We hypothesize that this decision aid will be feasible and acceptable to older patients with advanced CKD and their close persons and will help to support informed and shared decision-making for treatment of advanced CKD.

Research Design:
This is a randomized pilot study of older patients with advanced CKD and their close persons who are receiving care at University of Washington (UW) Medicine and VA Puget Sound Health Care System (VAPS). The study utilizes qualitative interviews and standardized questionnaires to assess the feasibility and acceptability of the decision aid. We will also explore decisional conflict and goal concordant care in patients and close persons who receive the decision aid and those who do not.

Methodology
We will recruit 92 patients aged 75 years and older with advanced CKD as defined as an estimated glomerular filtration rate <25 ml/min/1.73m2 from UW Medicine and VAPS. We will ask patients to invite up to 1 close person as defined as a relative or friend who assists them with their medical care to also participate in the study. We will randomize patients and their close persons in a 1:1 fashion to either usual care or receipt of the decision aid. Participants will complete all study procedures by phone and over a total of three phone study visits.

List of Abbreviations

CKD: chronic kidney disease

UW: University of Washington, Seattle WA

VAPS: VA Puget Sound Health Care System, Seattle WA

KRI: Kidney Research Institute, University of Washington, Seattle WA

VACOIN: VA Center of Innovation for Veteran-centered and Value-driven Care, Seattle WA.

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Protocol Title: A Pilot Study of *A Guide to Conservative Care*

1.0 Study Personnel

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2.0 Introduction

Chronic kidney disease (CKD) afflicts 1 in 7 Americans. Although dialysis is commonly regarded as a life-prolonging therapy for advanced CKD, there is growing recognition that dialysis is not always beneficial. Decisions about dialysis often involve difficult trade-offs between the potential gains in longevity and symptom management and the burdens of treatment including the substantial time spent on dialysis, complications related to treatment, frequent interaction with healthcare system and loss of independence.

Conservative care is an important option for patients who choose not to pursue dialysis that focuses on slowing the decline in renal function, active symptom management, advance care planning and the provision of appropriate palliative care. Observational studies suggest that for older adults (aged ≥75 years) with significant comorbidity and functional impairment, survival and quality of life may not differ appreciably between those treated with dialysis and those who pursue a more conservative approach for advanced CKD.

Few resources are available to help patients negotiate treatment decisions for their advanced CKD. Current decision aids focus primarily on of the benefits and harms of dialysis but include little or no information on conservative care. Thus, available decision aids miss critical content needed to support informed and shared decision-making for treatment of advanced CKD. In this context, it is not surprising that patients often feel that they have little choice but to start dialysis to avoid certain death, and most are unaware of alternatives to dialysis such as conservative care.

The current application is to support a pilot study to test the acceptability and feasibility of a novel dedicated decision aid for conservative care created by the principal investigator (PI, Wong). This will be the first evidence-based decision aid for conservative care for the U.S. population that has the potential to be a cost-effective, time-saving and scalable intervention to improve the care of patients with advanced CKD.

3.0 Objectives

We aim to conduct a randomized pilot study to test the feasibility and acceptability of a novel decision aid, *A Guide to Conservative Care* and explore preliminary outcomes, including decisional uncertainty and goal concordant care to inform a future clinical trial. We hypothesize that the decision aid will be feasible and acceptable to older patients and their family members.

The specific aims of this research are to:

1) Assess the feasibility and acceptability of a new educational handout called, *A Guide to Conservative Care* among older patients with advanced CKD and their close persons.

2) Explore decisional uncertainty and healthcare goals of patients and close persons who receive the *Guide* and those who do not.

4.0 Resources and Personnel

Study Sites:
Study subjects will be recruited from the UW Medicine and VAPS in Seattle. Original study data collected with UW Medicine will be stored and at the KRI. Original study data collected at VAPS will be stored at the VACOIN. Deidentified UW patient data will be moved to VA Puget Sound in order to facilitate pooled analysis. All data analyses will occur at VACOIN. No VA data will be shared with the UW.

Study Team Personnel
Susan Wong, MD, Principal Investigator: She will provide overall project leadership and supervision of study performance and progress. She will oversee all aspects of the study subject recruitment and follow-up, data collection and management, analyzing and interpreting data, and preparing study findings for publication and presentation. She will have access to protected health information.

Ernest Ayers, *MPH, Study Coordinator*: He will assist with project management and study coordination. He will not have access to protected health information.

Taryn Oestreich, MPH, Research Coordinator: She will assist with contacting and recruiting subjects, obtaining subject informed consent, administering the intervention and surveys, interviewing subjects, and collecting and analyzing study data. She will have access to protected health information.

Other
Rachel Smith, Medical Transcriptionist, BA: She will transcribe audio-recorded interviews collected for this study. The transcriptionist will have access to personal information that might be shared by the patient during interviews. He/she will not have access to protected health information.

5.0 Study Procedures

5.1 Study Design

We will conduct a randomized pilot study to test the feasibility and acceptability of a decision aid, *A Guide to Conservative Care*, among older patients with advanced kidney disease and their family members using interview methodology and questionnaires. We will also explore preliminary outcomes including decisional uncertainty and goal concordant care to inform a future clinical trial. We aim to enroll 92 patients with kidney disease and up to 92 of their close persons in this study. All study procedures will be completed over the phone. It will take a total of 3 phone calls to complete all study procedures. Each phone call will take a total of 30 to 45 minutes.

For completing the study procedures, we will give participants a $20 gift card at the start of the study, a $10 gift card at 2-week follow up, and a $10 gift card at 3-month follow up. For those who are chosen at random to receive the *Guide*, we will give an additional $20 gift card for each interview that you complete: 2-week follow up and a 3-month follow up.

The principal risk posed to study subjects is the potential loss of confidentiality. The proposed work requires the collection of protected health information to identify and recruit eligible subjects and contact and maintain follow up with participating subjects. We will also audio-record interviews with subjects during which personal information might be spoken.

To minimize this risk, we have outlined steps below to safeguard patient confidentiality. These include restricting data analyses to only de-identified data files, keeping separate a crosswalk file linking study ID with personal identifiers and data analysis files, storage of data on password-protected secure servers and key-locked filing cabinets accessible to only study team members who have completed training in the protection of human subjects, and the aggregation of study data for presentations and publications in order to conceal the subjects' identities.

With the measures outlined, we believe that the potential risks associated with the proposed work will be mitigated and will not outweigh the potential benefit to study subjects and the greater CKD population. The findings of this study will inform ongoing development of a novel decision aid to support informed and shared decision-making for patients with advanced CKD and their family members. For study subjects who know little or nothing about conservative care, reviewing

the decision aid as part of their participant in the study can be an educational experience for them.

Anticipated Risk: This study is specifically designed to minimize risks to subjects. The potential risks or harms for subjects in this study include those that may result from invasion of privacy, breach of confidentiality, lost time, and stresses associated with each of these. A risk for patients with chronic kidney disease is that discussing their disease may cause them discomfort. Similarly, a risk for their close persons is that discussing a loved one's kidney disease may cause them discomfort. To minimize stress and discomfort, participants will be able to decline to answer questions they wish and will be free to discontinue the interview at any time. All participants will be reminded that they have the right to refuse to answer any questions and a right to withdraw from the study at any time.

Potential Benefits**:** Patient and provider participants may benefit from this research directly and indirectly. This study will explicitly allow participants and their close persons the opportunity to describe their perspectives on treatment of advanced CKD, which may give participants an important outlet for describing their concerns and experiences. Participants may also gain satisfaction from participating in a research project designed to improve the quality of care for patients with CKD, which gives a sense that they are active contributors to research and medicine.

5.2 Recruitment Methods

Eligible patients will be identified by pre-screening the electronic medical records at UW Medicine and VAPS. We will mail a letter introducing the study (see Recruitment Materials). We will then follow up with a phone call about 1 week later to confirm that patients receive the letter and to determine if they are interested in learning more about the study. During this phone call, patients will be given the option of learning more about the study over the phone and/or receiving an information document describing the study in further detail that uses a similar format to a consent form. For patients who prefer to learn about the study by phone, we will provide them with a link to an online version of the study information document for them to review and download (https://redcap.link/kidney) while we read aloud the study information document. REDCap will NOT be used for the storage or analysis of any data. The only use of REDCap in this study is to use the provided link to disseminate an information sheet that does not require patients to enter any information.

If patients are interested, we will obtain their informed verbal consent. For those who prefer to first review a mailed study information document before deciding whether to participate, we will follow-up by phone in about 1 week after mailing the study information document and obtain their informed verbal consent as appropriate.

During the phone call in which consent is obtained, we will also ask patients to identify one close person to participate in this study. Patients who do not identify a close person are still eligible to participate in the study. For patients who do not wish to participate in the study, they may still identify a close person to participate in the study. We will obtain the mailing address and telephone number for the close person from patients and use this information to contact the close person. Recruitment procedures used with close persons will be similar to those detailed above for patients.

We will not make more than 3 attempts to reach each patient and close person by phone after mailing the introductory letter, for a total of 4 possible attempts.

5.3 Informed Consent Procedures

Pre-screening
We will request a waiver of consent and HIPAA authorization to access the electronic medical records of patients at each study site to identify eligible patients for this study and to obtain their name and contact information to contact eligible patients for recruitment purposes. The PI will pre-screen medical records. We will obtain names and contact information of close persons from patients.

Study Evaluations
We will mail all potential subjects a letter that introduces the study followed by a phone call document describing in detail the study aims, procedures, and potential risks and benefits. We will obtain verbal informed consent by phone. Subjects also have the option of requesting study information be mailed to them and to review and download this information from a website.

To ensure informed consent, we will use a "teach-back" method in which, after reviewing the study, we will ask patients and close persons a series of true/false questions about key aspects of the study aims, procedures and potential risks and benefits (see Recruitment Materials). Any responses that are incorrect or incomplete will be reviewed with patients and close persons, and they will be asked for responses to missed statements for a second time. We will repeat this teach-back approach a second time if there are aspects of the study that are still not understood by patients and close person. Patients and close persons whose responses to statements are still incorrect after three responses would be considered to have inadequate understanding of the study and to be ineligible to participate.

Patient participants will be informed that participation is fully voluntary and that their decision regarding participation will in no way affect their access to services or the quality of care they receive at their respective medical centers, and that their identifiable information will not, at any time, be linked to the digitally recorded interview or the subsequent transcript.

5.4 Inclusion/Exclusion Criteria

Inclusion criteria:

Patients

- Adults aged ≥75 years
- Advanced CKD as defined as having at least 2 outpatient measures of eGFR <25 ml/min/1.73m^2 separated by >90 days in the prior year and with at least 1 of these measures eGFR <20 ml/min/1.73m^2
- English-speaking

Close persons

- Adults aged ≥18 years
- Assists patient with their kidney disease care
- English-speaking

Exclusion criteria:
- Unable to complete the informed consent process

5.5 Randomization

Patients and their close person will be randomized together. We will use size 2 block randomization to assign patients to either: 1. The decision aid, or, 2. usual care (control). The study coordinator will be responsible for generating randomization codes using coin-toss.

5.6 Study Evaluations

The date of study enrollment will be the date that patient consent is obtained. Patients will be followed through patient's death, date of study withdrawal or 3-months after study enrollment, whichever is earliest.

Patients and close persons will each complete the following surveys and interviews at enrollment (T1), 2-week follow-up (T2) and 3-month follow-up (T3). All study procedures will be conducted by phone, and to maintain privacy, patients and close persons will complete procedures separately. After enrollment (T1), patients and close persons assigned to the intervention will be mailed *A Guide to Conservative Care* and will be given 2 weeks to review the *Guide*. The wording of surveys and interview guides will differ slightly to accommodate subjects who are patients and those who are close persons (see Study Materials). Patients who do not have a close person can still participate in the study and complete the following procedures.

Demographic questionnaire: At T1, patients and close persons will be asked 11 questions about their demographic background, including sex, age, race, prior education, total annual household income, current employment status, self-rated overall health, whether they had previously heard of dialysis or conservative care and sources of this information, relationship to patient (if close person), and whether they are the patient's surrogate decision-maker (if close person). This will take 3 to 5 minutes to complete.

Healthcare goals: At T1, T2 and T3, we will ask patients about their preference for either extending life or preserving comfort. Patients will also have the option of indicating that they are uncertain about which they prefer. Close persons will be asked a similar question about what they perceive the patients' healthcare goals are. This will take 1 to 3 minutes to complete.

Guide questionnaire: At T2, patients and close persons assigned to the intervention will be asked to complete a 4-item questionnaire on their experience with reviewing the *Guide*. This will take 10 to 15 minutes to complete.

Decisional conflict: At T1, T2 and T3, patients will be asked to complete the 16-item Decisional Conflict Scale to assess their preference for dialysis vs. conservative care. Close persons will be asked a similar question about what they would prefer for the patients. This will take about 5 to 8 minutes to complete.

Post-intervention interview: At T2, patients and close persons assigned to the intervention will be invited to answer 4 open-ended questions on the usability of the decision aid. Interviews will be

audio-recorded then transcribed. We estimate that an interview will take 20 to 30 minutes to complete.

Late-intervention interview: At T3, patients and close persons assigned to the intervention will undergo a semi-structured interview to inquire how the decision aid prompted discussion of conservative care with others and their healthcare providers and the outcomes of those interactions. Interviews will take 20 to 30 minutes to complete and will be audio-recorded then transcribed.

Treatment status: At T3, we will ascertain whether patients had died, started dialysis and enrolled in hospice.

5.7 Data Analysis

Feasibility and acceptability: As our primary aim, we will estimate the association of the intervention by the difference in patient-reported discussion of conservative care with their healthcare providers at T3. Based on prior work, the rate of patient-reported discussion of conservative care with their health care providers in usual care settings is approximately 29%. The target sample size (n=92) is estimated to provide 80% power (two tailed, α=0.05) to detect an absolute difference of 30% or more in rates of patient-provider discussion of conservative care between the intervention and control groups.

As part of our analysis of feasibility and acceptability, we will also calculate point estimates of completion rates and attrition rates and their 95% confidence intervals at T2 and T3.We will further assess user experience of the decision aid by performing a content analysis (an unstructured method of inquiry that facilitates discovery of previously unidentified factors pertaining to a phenomenon) of post-intervention interviews, coding for themes elucidating pros, cons and other considerations with using the decision aid to facilitate decision-making regarding conservative care with their healthcare providers.

Exploratory outcomes: We will assess change in knowledge on conservative care and confidence in making treatment decisions about conservative care (i.e., T3-T1 and T2-T1) based on scores on the Decisional Conflict Scale. To assess for goal concordant treatment decisions, we will measure the distribution of patients who rank life extension or comfort as their highest priority according to those who indicate on the Decisional Conflict Scale at T1, T2 and T3 that they opt for conservative care vs. dialysis. We will perform a content analysis of late-intervention interviews to ascertain detailed information about whether the decision aid prompted discussions on conservative care between patients, their close persons and providers, and code for themes reflecting actions taken by others and providers to subjects' interests and concerns regarding conservative care.

5.8 Withdrawal of Subjects

Subjects will be informed during the consent process and at each study phone visit that they can choose to withdraw from the study at any point in time.

There are no anticipated circumstances under which subjects will be withdrawn from the research without their consent. There are no anticipated consequences of a subject's decision to

withdraw from the research. During data collection, study interviewers will assure participants that they can, at any time during the interview, refuse to answer any questions asked of them and may at any time elect to withdraw from the study. If a participant elects to withdraw during the phone call, the interviewer will immediately end the interview or questionnaires.

6.0 Reporting

We do not anticipate any adverse events that might occur. However, any and all unanticipated problems, serious adverse events and protocol deviations will be recorded and reported immediately to the study Principal Investigator. Any serious adverse events and/or serious problems will be reported to the IRB within 5 business days. Additionally, the ISO and Privacy Officer will be notified within one hour of any improper use or disclosure of study data. The Principal Investigator will be the monitoring entity responsible for ensuring that all measures related to data security and protection of subject privacy and confidentiality are being followed.

Subjects will be informed to contact the PI for all urgent and non-urgent questions and concerns at the following: Susan Wong, Phone: 206-277-4376.

7.0 Privacy and Confidentiality

The proposed work will use protected health information. All study personnel who will have access to protected health information and/or will be involved in obtaining subject consent will be required to complete all necessary training in the protection of human subjects and privacy through the CITI Program and VA Learning University Talent Management System. All study personnel who have access to study and patient data have been approved by both the UW and VAPS.

All subjects will be given a unique study ID, and data collected for this study will be associated with study IDs only. A separate crosswalk file linking study IDs with personal identifiers will be kept in separate from data analysis files. Data analysis files will not contain personal identifiers.

All interviews will be transcribed and purged of any personal identifiers by the transcriptionist. Data analysis will be conducted using only the de-identified transcripts. Patient responses during interviews will also be kept confidential from their providers and close persons. Likewise, information shared by close persons will not be shared with patients.

Study data will be aggregated for presentations or publications related to the study in order to conceal the identities of subjects.

8.0 Communication Plan

The Head of the Division of Nephrology at each medical center will be notified of any adverse events or changes to the study protocol.

9.0 Information Security and Data Storage/Movement

UW patient data, including recruitment information, audio-recordings of interviews, interview transcripts, patient tracking information, and survey responses will be stored at the KRI in secure study folders. After recruitment and data collection, deidentified UW patient data will be moved to VAPS for final pooled analysis. All analysis will take place at VAPS.

The data flow for UW data is:
UW patient > VA and UW approved staff > UW servers > deidentified data into VA servers.

VA patient data, including recruitment information, audio-recordings of interviews, interview transcripts, patient tracking information, and survey responses, will be stored at VAPS in a secure J-drive study folder. No VA patient data will be shared with the UW, and all analysis will take place at VAPS.

The data flow for VA data is:
VA patient > VA and UW approved staff > VA servers

For both UW and VA data, interviews will be digitally audio-recorded and downloaded from recording devices to secure study folders using a USB fire cable. After audio-recordings have been saved, audio files will be erased from audio-recorders. Audio files of interviews will be labeled with study IDs and date of the interview only and will be accessible to the transcriptionist through the secure study folder. Transcripts of audio files will be saved as Microsoft Word format directly to secure study folders. The transcriptionist will not be permitted to save copies of audio files or transcripts onto personal computers or devices.

Survey study data will be assembled using structured forms designed in Microsoft Excel and saved in secure study folders. Data will be associated with study IDs only.

After deidentified UW data is moved to VAPS, all data collected at UW Medicine and VAPS will be stored on VACOIN access-protected servers on the J: drive. No VA data will be shared with the UW.

All research records, including the investigator's research records, must be retained until disposition instructions are approved by the National Archives and Records Administration (NARA) and are published in VHA's Records Control Schedule (RCS 10-1). (VHA Handbook 1200.05).

After all data are analyzed and manuscripts summarizing study findings are published (estimated 2029), all identifiable and crosswalk files will be destroyed.

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