

Practice Change Is Needed for Dialysis Decision Making with Older Adults with Advanced Kidney Disease

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A practice change is needed in the United States in the care of older patients with advanced CKD. Three reasons for this change exist: there is mounting evidence that dialysis may not benefit some older patients with significant comorbid illnesses (1–6), the decision to initiate dialysis often may not be concordant with patients' preferences (7–9), and the recommended approach for treatment decision making, shared decision making, is frequently poorly integrated into care for patients with advanced CKD (10–12). Comprehensive conservative care or conservative management (CM) of advanced CKD, defined as nondialytic management with integration of palliative care principles, is emerging as a patient-centered viable treatment choice for older adults with CKD and a high comorbidity burden (13,14). It is concerning that some studies suggest that patients are not well informed about CM and that their values, preferences, and goals may not be well integrated into dialysis decisions in real world clinical settings (9,11). The implementation of best clinical practices starts with a baseline assessment of the current state of services. That is what the study by Wong *et al.* (15) in this issue of the *Clinical Journal of the American Society of Nephrology* provides. They describe the existing practice pattern of dialysis initiation in a distinct cohort from the US Department of Veterans Affairs (VA) and contextualize it with global trends. Their study points to specific areas in which practice change would improve care.

There are many strengths to this paper, with the first being the relevance of its questions: how often do patients with advanced CKD choose to forgo dialysis, what are the characteristics of these patients, and what can be inferred about the clinical context in which these decisions are made? Their study uses two highly informative data registries, the US Renal Data System (USRDS) and data from the VA, the nation's largest integrated health care system, linked to Medicare administrative data, to identify patterns in patient experiences with dialysis. The USRDS is a vast data source but does not provide information about those who choose to not start dialysis. The authors sought this information through a detailed review of the medical records of 1928 patients with stage 5 CKD who did not have a dialysis procedure code in Medicare or VA administrative data during the 9-year duration of the study. Through chart review, the investigators categorized

these patients into three groups: those who received dialysis, those discussing or preparing for dialysis, and those who made a decision not to initiate dialysis. This process allowed them to estimate the proportion of all cohort members who received dialysis. They then stratified cohort members by age, race, and comorbidity; assessed temporal changes in practice patterns; and compared practice patterns internationally.

The results show that most patients (85.5%) were either started on dialysis or preparing for its initiation, regardless of age or burden of comorbidity. There was a lack of difference in practice patterns over time. In comparison with studies from Canada, Australia, and New Zealand, older patients in the United States were significantly more likely to start or be preparing for dialysis. This trend was seen even in the oldest age group of patients (those ≥ 85 years old) who had the highest burden of comorbidity. This practice contrasts with many known observational studies that show that the benefit of dialysis for these patients is questionable in terms of quality of life and survival (1–5).

Wong *et al.* (15) found no difference in the proportion of patients started on or preparing for dialysis when stratified by comorbidity score. These data suggest a decision-making process that is blind to the important role that comorbidity, a known key determinant of prognosis, should play in shared decision making (10). As early as 2000, Beddhu *et al.* (16) showed an increased risk of hospitalization and a 50% risk of 1-year mortality in patients on dialysis with the highest comorbidity scores. This has been replicated in more recent papers, with one showing a hazard ratio of mortality of 22.37 (95% confidence interval, 9.08 to 61.93) for those with a very high comorbidity burden compared with those with low comorbidity burden (17).

The failure to consider prognosis in dialysis decision making found in the study by Wong *et al.* (15) has been shown before in United States nephrology practice. An interview study of 62 patients on chronic dialysis with high 1-year mortality noted that none of the patients reported a discussion of prognosis with their nephrologist, and in 60% of patients, nephrologists were unable to provide a prognostic estimate (18). The omission of these discussions is likely to lead to high health care utilization and poor end of life experience (19). This was shown in a study of >55,000 VA decedents that compared the end of life experiences of patients with ESRD with those of

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patients with cancer, dementia, or other end organ failure (20). In this study, patients with ESRD died more often in the intensive care unit with fewer palliative care consults and lower family-reported quality of end of life care compared with those with cancer and dementia (20).

Prognostication is only part of the story. As cited by the Choosing Wisely Campaign and renal professional societies, nephrologists have an obligation to engage in shared decision making with their patients before starting dialysis (10,21). This process includes empathic communication of prognosis, disease process, and treatment choices along with careful elicitation of patient values. It is the backbone of patient-centered care and can facilitate advance care planning and end of life care congruent with patients' wishes (21). Shared decision making can only be effective if providers frankly discuss all treatment options with their patients in the context of their individual prognosis. Unfortunately, research has shown that the choice of dialysis therapy is often presented as binary (dialysis or death) without discussion of CM or time-limited trials (9,12). This implies that the details of CM are largely unfamiliar to many practitioners, that there is discomfort on the part of providers in having these conversations, or that they are poorly trained in this skillset (12,13).

The observational study by Wong *et al.* (15) issues a call to action to the nephrology community for better incorporation of shared decision making into care of patients with CKD. Shared decision making addresses the ethical need to fully inform patients about the risks and benefits of dialysis and ensure that patients' values and preferences play a prominent role in decisions (10). It is imperative that this practice is implemented as a standard of care, so that older patients with advanced CKD can make informed decisions. Nephrologists should feel comfortable recommending CM to patients who are predicted to do poorly with dialysis initiation and suggesting a time-limited trial to those who still opt for dialysis (10). For effective shared decision making that includes discussion of CM, nephrologists will need to become aware of and incorporate into their practice the recommendations in the *Shared Decision-Making in the Appropriate Initiation of and Withdrawal from Dialysis* second edition clinical practice guideline (10). These recommendations state that nephrologists are not obligated to offer dialysis to all patients. For cases in which the family pushes for dialysis for an incompetent patient but the nephrologist advises against it because of a poor prognosis, a systematic approach, including a time-limited trial of dialysis and/or ethics or palliative care consultation, may support the family and assist with conflict resolution (10).

For patients who choose not to start dialysis (14.5% in the study by Wong *et al.* [15]), a comprehensive care model that delivers optimal CM needs to be developed in this country. CM models in other countries provide effective symptom management and improve quality of life (22). The international comparisons show that shared decision making and the presence of an established CM pathway can result in more informed treatment choices and initiation of dialysis in those who would most benefit. A practicing nephrologist in Australia reports that older patients in his country are becoming less apprehensive choosing CM, partly because their nephrologists are now more comfortable with this decision after greater development of Renal Supportive Care programs. CM is described to these patients as a course of

treatment, in which they will be well taken care of and they will not be subjected to dialysis when it is unlikely to offer significant survival over CM but is likely to detract from their quality of life (M. Brown, personal communication).

The practice change needed in nephrology is extensive. Despite the integration of palliative care into the care of patients with cancer and other chronic diseases (23), a national policy shift toward patient-centered care (12), and recognition by nephrology fellows over a decade ago that more palliative care education is needed in their training (24), Wong *et al.* (15) have shown that nephrology practice in the United States has not kept pace. Nephrology training programs need to include more primary palliative care (25). The leaders in the nephrology interdisciplinary community, including nephrologists, nurses, social workers, dietitians, and technicians, in collaboration with palliative care clinicians need to make the implementation of a comprehensive model of renal supportive care delivery a priority for the growing population of older patients with advanced CKD. Such collaborative care exists in other countries. It is time for this practice change to occur in the United States.

Disclosures

None.

References

1. Murtagh FE, Marsh JE, Donohoe P, Ekbal NJ, Sheerin NS, Harris FE: Dialysis or not? A comparative survival study of patients over 75 years with chronic kidney disease stage 5. *Nephrol Dial Transplant* 22: 1955–1962, 2007
2. Hussain JA, Mooney A, Russon L: Comparison of survival analysis and palliative care involvement in patients aged over 70 years choosing conservative management or renal replacement therapy in advanced chronic kidney disease. *Palliat Med* 27: 829–839, 2013
3. Verberne WR, Geers AB, Jellema WT, Vincent HH, van Delden JJ, Bos WJ: Comparative survival among older adults with advanced kidney disease managed conservatively versus with dialysis. *Clin J Am Soc Nephrol* 11: 633–640, 2016
4. Chandna SM, Da Silva-Gane M, Marshall C, Warwicker P, Greenwood RN, Farrington K: Survival of elderly patients with stage 5 CKD: Comparison of conservative management and renal replacement therapy. *Nephrol Dial Transplant* 26: 1608–1614, 2011
5. Carson RC, Juszczak M, Davenport A, Burns A: Is maximum conservative management an equivalent treatment option to dialysis for elderly patients with significant comorbid disease? *Clin J Am Soc Nephrol* 4: 1611–1619, 2009
6. Wong SP, Kreuter W, O'Hare AM: Treatment intensity at the end of life in older adults receiving long-term dialysis. *Arch Intern Med* 172: 661–663, 2012
7. Morton RL, Snelling P, Webster AC, Rose J, Masterson R, Johnson DW, Howard K: Factors influencing patient choice of dialysis versus conservative care to treat end-stage kidney disease. *CMAJ* 184: E277–E283, 2012
8. Hines SC, Glover JJ, Babrow AS, Holley JL, Badzek LA, Moss AH: Improving advance care planning by accommodating family preferences. *J Palliat Med* 4: 481–489, 2001
9. Song MK, Lin FC, Gilet CA, Arnold RM, Bridgman JC, Ward SE: Patient perspectives on informed decision-making surrounding dialysis initiation. *Nephrol Dial Transplant* 28: 2815–2823, 2013
10. Renal Physicians Association: *Shared Decision-Making in the Appropriate Initiation of and Withdrawal from Dialysis*, 2nd Ed., Rockville, MD, Renal Physicians Association, 2010
11. Wong SP, Vig EK, Taylor JS, Burrows NR, Liu CF, Williams DE, Hebert PL, O'Hare AM: Timing of initiation of maintenance dialysis: A qualitative analysis of the electronic medical records of a national cohort of patients from the Department of Veterans Affairs. *JAMA Intern Med* 176: 228–235, 2016

12. O'Hare AM, Armistead N, Schrag WL, Diamond L, Moss AH: Patient-centered care: An opportunity to accomplish the "Three Aims" of the National Quality Strategy in the Medicare ESRD program. *Clin J Am Soc Nephrol* 9: 2189–2194, 2014
13. Davison SN, Levin A, Moss AH, Jha V, Brown EA, Brennan F, Murtagh FE, Naicker S, Germain MJ, O'Donoghue DJ, Morton RL, Obrador GT; Kidney Disease: Improving Global Outcomes: Executive summary of the KDIGO Controversies Conference on Supportive Care in Chronic Kidney Disease: Developing a roadmap to improving quality care. *Kidney Int* 88: 447–459, 2015
14. Vandecasteele SJ, Kurella Tamura M: A patient-centered vision of care for ESRD: Dialysis as a bridging treatment or as a final destination? *J Am Soc Nephrol* 25: 1647–1651, 2014
15. Wong SPY, Hebert PL, Laundry RJ, Hammond HW, Liu C-F, Burrows NR, O'Hare AM: Decisions about renal replacement therapy in patients with advanced kidney disease in the US Department of Veteran Affairs, 2000–2011. *Clin J Am Soc Nephrol* 11: 1825–1833, 2016
16. Beddhu S, Bruns FJ, Saul M, Seddon P, Zeidel ML: A simple comorbidity scale predicts clinical outcomes and costs in dialysis patients. *Am J Med* 108: 609–613, 2000
17. Chae JW, Song CS, Kim H, Lee KB, Seo BS, Kim DI: Prediction of mortality in patients undergoing maintenance hemodialysis by Charlson Comorbidity Index using ICD-10 database. *Nephron Clin Pract* 117: c379–c384, 2011
18. Wachterman MW, Marcantonio ER, Davis RB, Cohen RA, Waikar SS, Phillips RS, McCarthy EP: Relationship between the prognostic expectations of seriously ill patients undergoing hemodialysis and their nephrologists. *JAMA Intern Med* 173: 1206–1214, 2013
19. Bernacki RE, Block SD; American College of Physicians High Value Care Task Force: Communication about serious illness care goals: A review and synthesis of best practices. *JAMA Intern Med* 174: 1994–2003, 2014
20. Wachterman MW, Pilver C, Smith D, Ersek M, Lipsitz SR, Keating NL: Quality of end-of-life care provided to patients with different serious illnesses. *JAMA Intern Med* 176: 1095–1102, 2016
21. Williams AW, Dwyer AC, Eddy AA, Fink JC, Jaber BL, Linas SL, Michael B, O'Hare AM, Schaefer HM, Shaffer RN, Trachtman H, Weiner DE, Falk AR; American Society of Nephrology Quality, and Patient Safety Task Force: Critical and honest conversations: The evidence behind the "Choosing Wisely" campaign recommendations by the American Society of Nephrology. *Clin J Am Soc Nephrol* 7: 1664–1672, 2012
22. Brown MA, Collett GK, Josland EA, Foote C, Li Q, Brennan FP: CKD in elderly patients managed without dialysis: Survival, symptoms, and quality of life. *Clin J Am Soc Nephrol* 10: 260–268, 2015
23. Temel JS, Greer JA, Muzikansky A, Gallagher ER, Admane S, Jackson VA, Dahlin CM, Blinderman CD, Jacobsen J, Pirl WF, Billings JA, Lynch TJ: Early palliative care for patients with metastatic non-small-cell lung cancer. *N Engl J Med* 363: 733–742, 2010
24. Holley JL, Carmody SS, Moss AH, Sullivan AM, Cohen LM, Block SD, Arnold RM: The need for end-of-life care training in nephrology: National survey results of nephrology fellows. *Am J Kidney Dis* 42: 813–820, 2003
25. Quill TE, Abernethy AP: Generalist plus specialist palliative care—creating a more sustainable model. *N Engl J Med* 368: 1173–1175, 2013

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