Why Will Geriatric Nephrology Be an Important Area of Focus in Kidney Care in the Near Future?

By Jawed Areeba

With fertility in decline and life expectancy on the rise around the world, there are many unanswered questions that warrant answers in healthcare. Currently, living to age 70 or 80 years old is no longer considered a rarity in the developed world. However, longer lifespans have led to new challenges. How many years can older people expect to live in good health? Which chronic illnesses will affect these aging individuals? How will the rising cost of health care be accounted for? The world is facing these and many more questions as the population continues to age. Nephrologists need to direct their efforts and attention to the fastest-growing subset of patients with chronic kidney disease (CKD), which overwhelmingly includes those more than 65 years of age.

Challenges for the nephrologist in the face of an aging patient population

It is predicted that, from 2025 to 2050, the older population will almost double to 1.6 billion globally, whereas the total population will grow by merely 34%. Within the United States, the oldest populations, those at extremely old ages of 90 to 100 years or older, are growing faster than their younger counterparts, despite representing a small portion of the total population. From 1980 to 2010, U.S. Census data showed that the population of those 90 years old and older almost tripled and that those 100 years old and older increased by 65.8% compared with a doubling of the population ages 65 to 89 years old (1).

These numbers imply that nephrologists will now also be dealing with what seems to be a predominantly geriatric condition (i.e., CKD), a finding reinforced by National Health and Nutrition Examination Survey (NHANES) data that show the highest prevalence of CKD in the population subset more than 70 years of age (2). However, there are various criticisms of this dataset, including the methods used for estimated GFR assessment and its applicability to the older population along with conflicting opinions regarding age-related estimated GFR decline versus true increases in CKD prevalence related to the rising epidemic of obesity and diabetes (3), which remains the most common cause of CKD in the elderly population. Regardless of the arguments, as per the most recent U.S. Renal Data System report, ESRD prevalence was highest for the 65- to 74-year-old cohort. Although those 75 years old and older had the highest end-stage renal disease (ESRD) incidence rate, lower prevalence was presumably because of higher mortality among these oldest ESRD patients (4).

When it comes to addressing the needs of the geriatric CKD population, there are several parameters that are unique and require special attention. These range from shifting through competing diagnoses and management options in the setting of multiple comorbidities to dealing with profound symptom burdens affecting quality of life, as well as helping patients with the much-feared decision of conservative versus aggressive renal care toward the end of life. This milieu of conflicting assessments and competing comorbid conditions requires the nephrologist to envision a holistic and geriatric-focused plan of care, where decisions regarding treatment of CKD and ESRD have grave socioeconomic, functional, psychological, and ethical implications.

The role of the nephrologist in the geriatric assessment

Despite having limited specific geriatric training, the nephrologist is expected to perform a wide range of services for the elderly, because they assume primary care responsibilities for the dialysis patient and for many of those with CKD.

The geriatric assessment is focused on maintaining the functionality of older individuals and requires a multidisciplinary approach with which the nephrologist is familiar. The components of a comprehensive geriatric assessment include those listed in Table 1 (5).

More recently, studies have shown that dialysis in the very elderly may not offer longevity (6) and, in fact, could contribute to a poorer functional status and declining quality of life, requiring nephrologists to be equipped with better tools to use when having these daunting conversations, which will help align the plan of care with the patient’s goals and values. Current frameworks that have been developed to guide nephrologists include the NephroTalk communication skills model, guidelines by the Renal Physicians Association, and educational resources developed by the Coalition for Supportive Care of Kidney Patients (7, 8).

The change in payment models and the rising cost of healthcare also necessitate nephrologists’ responsibility for value-based decisions for their complex older patients. Nephrologists need to find solutions to financially unsustainable models, whereby dialysis patients make up the majority of Medicare spending toward end of life and fall at the bottom of hospice utilization, despite significant expected mortality (9).

Which areas of geriatric nephrology need additional focus?

There are many unanswered questions about the management of elderly patients with CKD. Of utmost concern are the issues in nephrology specifically affected by age and the effect of age on diagnosis and therapy in important ways. Broadly speaking, these unanswered questions can be divided into 1) knowledge gaps regarding issues of pathogenesis, diagnosis, and therapy in the geriatric patient with kidney disease, and 2) specific and unique aspects of care that confront the nephrologist of geriatric patients.

Nephrologists struggle with the variability in pathogenesis of the aging kidney and assessment of CKD in the older population because, unfortunately, most studies exclude this population subset. There is a lack of risk assessment tools to identify which patients will progress to ESRD and why some patients are protected from sharp declines in kidney function, which remain puzzling for most of us. Does the management of comorbid conditions, such as diabetes and hypertension, remain the same in the elderly?

In summary, to optimize the experience of the geriatric CKD patient, one needs more than the average set of nephrology skills. Adequate training in issues specific to geriatric nephrology coupled with a multidisciplinary approach, value-based decision making, and incorporation of palliative care skills into the care of these patients are key for providing comprehensive care to our older patients.

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References


Table 1. Comprehensive geriatric assessment for the nephrologist

- Functional assessment, including ability to perform activities of daily living to identify patients who may be in need of additional resources
- Cognitive assessment using the Montreal Cognitive Assessment tool thought to be more sensitive for patients with CKD; this helps evaluate patients for decision-making capacity
- Recognizing polypharmacy in the elderly, the revised Beers Criteria can be used as a reference for interactions and side effects
- Managing mental and emotional health, including identifying and treating depression
- Assessing for mobility and risk of falls
- Nutrition parameters
- Sensory screening, including regular ophthalmologic and audiology examinations
- Advance care planning

Abbreviation: CKD = chronic kidney disease.