

## What do Fellows Want?

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age has recently fallen, mostly for US medical graduates, but to some extent for IMGs as well. If this trend continues, we might see a positive impact on the perception of nephrology by residents considering it as a career and hopefully greater career choice satisfaction for nephrology fellows.

### Nephrologists' role in emerging health care

At the same time that changes in the nephrology workforce and in what fellows want are taking place, several variables are affecting the emerging needs of nephrology. There has been a decline in the incidence of ESRD, likely in part due to more aggressive treatment to slow progression of CKD. Nephrologists will need to continue to be a part of this effort if this trend is to continue. Despite a decrease in incidence, the prevalence of ESRD has increased, due to factors such as the growth of the population, with a large percentage having diabetes mellitus and hypertension, and improved dialysis care leading to a reduction in mortality. Nephrologists will obviously be essential to their care, even

as the role of physician assistants and nurse practitioners continues to evolve.

Kidney transplantation has seen the introduction of new agents such as belatacept that require additional expertise on the part of nephrologists. Hence a larger number of nephrologists who are highly competent and comfortable in the use of such therapies may be needed. The nephrology workforce, as for many other physician specialties, tends to be unevenly distributed across the country, with some areas having high concentrations of nephrologists and others with a severe shortage and large obstacles to recruitment. Challenges with recruitment to certain areas could potentially be addressed through telemedicine, for example in areas with large distances between dialysis units.

A further area of uncertainty that will affect the needs of nephrology will be the impact of emerging models of health care including the roles of physician extenders. For example, as described in the US Adult Nephrology Workforce 2016 Report, the ESRD Seamless Care Organization (ESCO) will be one such model whose potential impact cannot be determined at this time in terms of the job market for nephrologists. Whether through an ESCO or other model, increased use of physician assistants and nurse practitioners is a phenomenon whose

impact on future career opportunities for nephrologists merits close watching.

Nephrology has made enormous advances but is in need of much more progress to ensure the ability to draw fellows who will pursue careers in clinical practice as well as those with potential for careers as nephrology researchers and educators. The excitement and vast potential of nephrology research, the deep personal rewards that come from caring for patients with renal disease, and the satisfaction derived from mastery of the subject matter of nephrology while maintaining a strong command of general internal medicine all need to be communicated to students and residents. Novel elective models and other interventions to expose students and residents to a broader spectrum of nephrology have been proposed and are being utilized at various institutions, with impacts that deserve further study. It is hoped that over the coming year we will start to see some reversal in the recent trend away from pursuing careers in nephrology and gain further insights in how to facilitate this. ●

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## The Nephrology Care Team: Whose Responsibility is it to Educate?

By Amy Williams, MD

Leaving ASN Kidney Week 2016, I was excited to integrate new knowledge and thoughts into processes to improve the care and outcomes of patients with advanced CKD. Realizing that outcomes for these patients depend on early identification and appropriate management throughout their disease trajectory with attention to transitions across settings of care, and during disease progression or additions of co-morbidities, begs the question: Whose responsibility is it to bring up-to-date knowledge to the community primary care practitioners, home health agencies, other subspecialists, and anyone else who participates in the care of those with CKD 4+?

A critical first step in answering this question is defining who is on the extended care team and what role each team member plays. Certainly the team's anchor is the patient, but the captain or general manager must be the one with the most knowledge related to managing the patient population. For CKD and particularly CKD 4+, it is the nephrologist.

Patients have told us that to gain maximum usability of information, they want timely, transparent, open, and honest conversations that contain information with a tight feedback loop translated on their level and relevant to their current disease state. They also ask that all members of their care team have and share the same information to avoid confusion. Whose responsibility is it to manage the information? It is the nephrologist's.

With crammed office schedules and many competing responsibilities, the nephrologist does not have the luxury of spending the time needed with each patient to adequately educate them on their disease and treatment options, including conservative care. Reliable processes are needed to monitor disease progression, co-morbidities, and treatment effectiveness. Without effective and efficient processes, patient safety and outcomes are at risk. Health care delivery systems with multidisciplinary teams educated about the target population and disease cluster, captained by the content expert provider, can mitigate these risks.

Patients want a continuous connection to their medical care team, but only want a face-to-face meeting when

necessary. Education theory tells us that the most effective learning method is iterative with repeated discussions and teach-back. A 15-minute office visit with the nephrologist will not accomplish this goal. In fact, the time the nephrologist has with the patient is critically valuable—and should focus on discussions and complex decisions that only the nephrologist is trained to do.

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Also, it is not patient-centric to interrupt patients' lives for an office visit if the assessment and care decision can be made virtually through synchronous, live, two-way video interactions between the patient and care team member—RN, advanced practice provider (APP), dietician, social worker, pharmacist, and if needed, the nephrologist, using audiovisual telecommunication technology. Review of health records or lab data via asynchronous transmission to the nephrologist—possibly reviewed and triaged by a trained RN or APP with knowledge and algorithms to determine whether the patient should be seen in the office or not—can be effective and efficient. Managing ESRD patients either at home or in-center is also best when team-based. We are accustomed to employing a team-based model in dialysis units, depending on the social worker and dietician to fill in our skill and knowledge gaps, or

nurses to lead just-in-time educational sessions with patients. These models should be expanded to pre-ESRD care models.

It is important to include other providers who care for the advanced CKD patient on the team. Shared care plans, knowledge of best practices and electronic health records, as well as establishing easy referrals using face-to-face office visits or virtual evaluations are important steps to smooth care and disease transitions resulting in improved outcomes for this complex patient population.

As the CKD population increases and decisions for patients with complex chronic disease become more complicated, it is imperative that nephrologists stay in the captain or general management role, leading the care team by sharing their knowledge and expertise and giving timely input. Success depends on staying connected to patients in a way that supports them when they need support. Care teams should be designed to easily share knowledge across settings, accomplishing this through web-based care algorithms and links to educational materials. The key is to have the resources available to the providers and care team members when they need it—at the bedside or in the office.

In summary, to accomplish population management in the CKD 4+ complex chronic disease population, nephrologists must develop expanded care teams that include flexible partnerships with other providers and the community. Their responsibility as general manager or captain includes coordinating consistent integrated flow of information, and developing an expanded CKD/ESRD team with standardization of care and of care team members' roles—including the patient. Accomplishing this should lead to the goal of improved outcomes through effective management of kidney disease and the co-morbid conditions common in patients with advanced kidney disease. ●

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