Engaging Trainees by Enriching Nephrology Elective Experiences

Jeffrey H. William, Taimur Dad, Rachel E. Hilburg, Koyal Jain, and S. Ali Husain

CJASN 17: , 2022. doi: https://doi.org/10.2215/CJN.00070122

There is increasing urgency to re-evaluate current efforts to recruit and inspire the next generation of nephrologists. In the Academic Year 2022 Nephrology Match, only 69% of fellowship positions and 52% of nephrologists. In the Academic Year 2022 Nephrology efforts to recruit and inspire the next generation of nephrology practice. Rather, elective time was reported to be predominantly spent on inpatient nephrology consultation (Figure 1), and no division reported offering a purely outpatient rotation.

During the Town Hall small group discussions focusing on electives, several themes emerged. TPDs noted that direct faculty interaction with rotating trainees is typically limited by competing work demands and lack of protected time. Therefore, clinical fellows carry the burden of providing a meaningful experience even when electives are of sufficient duration. Similarly, the pace of outpatient clinics leaves little time for dedicated teaching of students who have a limited ability to see patients on their own, dampening many attendings’ enthusiasm to host trainees. Exposure to offsite outpatient hemodialysis units was noted to be challenging due to transportation. Additionally, resident rotations were reported to have competing demands, including sick call coverage and resident continuity clinics, complicating the scheduling of educational experiences. Although survey respondents and Town Hall participants are from a small proportion of all institutions that offer nephrology electives, the consistency of the gaps identified warrants further consideration regarding how nephrology electives can be improved.

Given the importance of elective experiences in securing the future of the nephrology workforce, we propose the following action items.

(1) Create an outpatient elective “blueprint.” An institutional elective blueprint can provide a scaffold for what trainees will experience during their electives (8). Although specific faculty members may differ on the basis of availability, the experiences could remain constant. These should include outpatient opportunities in clinics and dialysis units, with a particular emphasis on home dialysis modalities, including both home hemodialysis and peritoneal dialysis. Experiences in outpatient clinics should be varied to ensure that trainees spend time with a diverse group of nephrologists and patients, including managing patients in both general and

1Division of Nephrology, Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, Massachusetts
2Division of Nephrology, Tufts Medical Center, Boston, Massachusetts
3Department of Medicine, Division of Nephrology, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania
4University of North Carolina Kidney Center, Division of Nephrology and Hypertension, Department of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina
5Division of Nephrology, Department of Medicine, Columbia University Medical Center, New York, New York

Correspondence: Dr. S. Ali Husain, Division of Nephrology, Columbia University Medical Center, 622 W 168th St, PH4-124, New York, NY 10032. Email: sah2134@cumc.columbia.edu
Focus on institutional strengths. Each institution has the responsibility of providing a trainee with a diversity of potential mentors within the division. Feedback from trainees at the beginning of each rotation or at interim touch points can be used to personalize electives by increasing exposure to specific areas of interest within nephrology. Research electives and projects can serve as valuable nonclinical experiences that expose trainees to the breadth of nephrology and lend themselves to strong mentorship relationships between trainees and faculty. A repository of successful elective blueprints has been added to the ASN Educator website (https://www.asn-online.org/education/training/educators) and contains sample electives for academic and private practice settings. This repository will be continuously expanded via user submission.

(2) Focus on institutional strengths. Each institution has unique strengths and resources. Although a given institution may not have a transplant program, it may have a robust network of dialysis units with experienced nurses who can teach trainees. General nephrology clinics may not be able to provide a trainee with multiple cases of GN over 1–2 weeks, but ancillary services (i.e., nutrition or dialysis modality counseling) may expose trainees to previously unknown resources in the outpatient setting. Outpatient experiences will differ among institutions, but any unique experiences can highlight the strengths of a division or practice.

(3) Leverage existing asynchronous learning resources. Even the most structured clinical experience in nephrology will be limited by available institutional resources and the case mix of a particular rotation. Nephrology educators globally have developed freely accessible resources, including NephMadness, GlomCon, web-based learning cases/modules (NephSIM), podcasts (Freely Filtered, Channel your Enthusiasm), and Twitter chats (NephJC). We should leverage the efforts of nephrology educators and allot time during electives for trainees to engage with these resources. Current trainees are accustomed to asynchronous learning and will appreciate the flexibility in learning from these resources and obtaining a broader exposure to the world of nephrology.

(4) Identify key administrative staff for elective coordination. Many TPDs remarked on the logistical challenges of tailoring worthwhile nephrology experiences. A dedicated administrative coordinator could engage with the medical school or internal medicine residency program to create individualized schedules for trainees using the institutional elective blueprint, ensuring that important medical school or residency commitments are not overlooked and that dedicated nephrology educators expect and prepare for a trainee’s presence in their clinical work.

(5) Support faculty “touchstones” and mentors. Faculty mentorship is important in improving interest in nephrology among trainees (2). Skilled faculty educators with an interest in working with trainees should take on the responsibility of “division champions” that serve as touchstones throughout elective experiences. Key expectations may include a meeting at the start of the rotation regarding expectations and assigned asynchronous learning as well as scheduled weekly check-ins thereafter. Institutional support of these faculty touchstones will ensure that trainees receive attention and continuity in furthering their nephrology education.

Tailored electives with broad exposure to nephrology represent a key opportunity to increase interest in nephrology among trainees. However, the current landscape of homogeneous, inpatient-focused electives with limited one-on-one faculty mentorship represents missed opportunities to expose elective participants to the breadth and excitement of careers in nephrology. Our ongoing dismal fellowship match data, along with upcoming changes in the internal medicine program requirements, make this the perfect time for...
nephrologists to invest in improving these experiences for trainees to ensure the future of our specialty’s workforce.

Disclosures
R.E. Hilburg’s spouse reports employment with Lockheed Martin. S.A. Husain reports research funding from the Nelson Family Foundation and honoraria from the Renal Research Institute. K. Jain reports research funding from Visterra as a principal investigator for an IgA trial and from Kaneka as a principal investigator for a liposorber study. J.H. William reports ownership interest in Gerson Lehrman Group. The remaining author has nothing to disclose.

Funding
None.

Acknowledgments
The authors thank Dr. Scott Gilbert for his guidance in the planning and preparation of this manuscript. The content of this article reflects the personal experience and views of the author(s) and should not be considered medical advice or recommendation. The content does not reflect the views or opinions of ASN or CJASN. Responsibility for the information and views expressed herein lies entirely with the author(s).

Author Contributions
T. Dad, R.E. Hilburg, S.A. Husain, K. Jain, and J.H. William conceptualized the study; T. Dad, R.E. Hilburg, S.A. Husain, K. Jain, and J.H. William wrote the original draft; and T. Dad, R.E. Hilburg, S.A. Husain, K. Jain, and J.H. William reviewed and edited the manuscript.

References

Published online ahead of print. Publication date available at www.cjasn.org.