Kidney360

Kidney Biopsy Should Remain a Required Procedure for Nephrology Training Programs: COMMENTARY

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KIDNEY360 3: 1670–1671, 2022. doi: https://doi.org/10.34067/KID.0000872022

Kidney biopsy really began in the 19th century as part of autopsies, and as new stains were developed in the late 19th and early 20th centuries, disease states were defined with increasing precision. In 1944, the first true aspiration kidney biopsy was done using x-ray and retrograde pyelography to detect kidney cancer (1). And in 1951, Iverson and Brun published their technique for percutaneous aspiration. Information exploded as live time pathology explained AKI, nephrotic syndrome, and nephritic diseases. Treatment strategies developed. The kidney became an area where real expertise was required, and the field of nephrology was born. In 1966, the American Society of Nephrology was founded. Kidney biopsy and pathology remain critical to our diagnostic and therapeutic strategy as nephrologists. That is not up for debate.

But as 2022 starts, we find ourselves still struggling to define what kind of specialty we are. On the one hand are the great physiologists whose work defines the inner workings of the kidney. They founded this field and continue to move it forward. Their science discovers new mechanisms of disease and pushes the boundaries of our understanding of kidney injury and repair. On the other hand, are the clinicians, who until the recent flozins hit the market increasingly found ourselves struggling to write anything new in a CKD consult other than "avoid nephrotoxins" and "stop the nonsteroidal anti-inflammatory drugs" in the last 20 years. We now find ourselves at a turning point where we must define who and what we are. Increasingly, medical billing is a critical factor in our decision making, with E/M coding for deep thinking being valued by society and payers less than even the simplest of procedures. To all of this, add point-of-care ultrasound (POCUS)—a novel and exciting new way to get information about our patients quickly, and another skill to learn.

Applications to nephrology have been dramatically down during the last decade, with 60% of the training programs not filling in the match. Nephrology educators and program directors have been working hard to increase interest in nephrology and to ensure our trainees (who may have more limited experiences prior to fellowship) meet the Accreditation Council for Graduate Medical Education (ACGME)'s 23 clinical competencies by the time they graduate. And although there was some hope with more applications in this year's application cycle, the net effect was that a lot of training programs didn't fill again, affecting workforce issues and clinical care. To add to all this, the effect of the coronavirus disease 2019 pandemic on our subspecialty will play out in the years ahead and is a complete unknown. Nephrologists' role in the hospital has changed, and our role in our communities is critical to prevent kidney disease. Local and national activism are critical to raise awareness in our most vulnerable populations because prevention of progression is key. We have a lot to do to keep the United States' kidneys safe. And it is a lot to take on.

There has always been a debate about the utility of procedures in our specialty. It wasn't all that long ago when the academic elite were not sure of the role dialysis should play in nephrology compared with the core physiology topics such as metabolic acidosis and hyponatremia. But dialysis doctors prevailed, aided by a boost from a national payment source and political activism, and treating patients with ESKD is now a tenet of our specialty. We would never give that up. And now we have to face decisions about dialysis catheter placement and kidney biopsy. What role do they have in our training program and in our field as we move forward? POCUS is rapidly gaining ground as nephrologists discover a quick and easy tool to aid in the assessment of volume status and AKI evaluation; another procedure to learn.

For some, kidney biopsy is a time-consuming procedure that doesn't pay enough to be worth it—unless you factor in the comfort for a patient in seeing their own doctor whom they have known for years coming into the room to perform the procedure. It can take time, pays little, and requires keeping up a skill set and equipment and booking procedural space. It can be done by general nephrologists, and increasingly by interventional nephrologists, or interventional radiologists and surgeons. For others, the biopsy is a critical part of the care we offer and keeping control over who gets biopsied and how they get interpreted and acted upon helps to hold our ground against other subspecialties taking over the care of our patients. No one wants us to get to the point where a rheumatologist can order a kidney biopsy by interventional

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radiology, then treat the Class V lupus nephritis with infusions in their clinic without us. But how do we do that?

Both the ACGME and the American Board of Internal Medicine (ABIM) currently require competency in kidney biopsy training for graduation from a nephrology fellowship and to sit for the boards. That is not up for debate. However, at many institutions, interventional radiology has crept in and taken the kidney biopsy procedure from nephrology, often at our behest when we couldn't find the time or energy to do them. Program directors struggle to find meaningful ways in which to train their fellows to be competent. And at national meetings, program directors debate the meaning of the word "competency". Do fellows really have to know how to do the procedure? Or just when it is indicated? Or just how to interpret them? Or does it mean that they have to perform the procedure from start to finish on their own? In institutions that tend to perform more biopsies, the fact that the ACGME requires it of our trainees is often used to get the ultrasound resources that we need to be able to train fellows to perform the procedure. After all, if training fellows to do kidney biopsy is an ACGME requirement, then the institutions must support it if they want a training program to exist. If it wasn't a requirement, hospitals and schools don't have to invest the money, and we risk losing valuable resource allocation to our learners.

Where the role of kidney biopsy falls in 2022 is a complicated issue. In this *Kidney360* debate, our two authors present opposing views on whether it should be a requirement or simply a choice of nephrology fellows if they choose to learn the skill. Dr. Rodby argues that placing kidney biopsy is a "tradition" in our training whose time has passed. Physicians in the community don't do it, and we shouldn't pretend we are training people when we are not. He advocates for voluntary training tracks within programs that could lead to a certification that is different. On the other hand, Drs. Obaidi and Sozio argue that procedural training in biopsies is safe and effective and should be embraced to continue our role in our patients' care. With the rapidly expanding use of POCUS in nephrology, and the fact that it is a novel tool of great interest to residents considering careers in nephrology, we should be refining and standardizing our training offerings in biopsy, not throwing it out altogether.

But this is a tricky issue. The ABIM recently surveyed 2504 board-certified nephrologists, and 83% of them no longer perform kidney biopsies (2). Seventy-one percent no longer place catheters. Have we already abandoned these procedures? Or should we reinvigorate them? The ABIM wants to know what we think. How we decide this issue and what our specialties recommendations are to the ABIM will have a large effect on who we are in the years to come. We need to think about it carefully, weigh the evidence carefully. POCUS is a hot area of interest for trainees and internal medicine residents. So, how will this affect our support or dissent from other procedural aspects of the specialty? Who we are is a critical issue in this *Kidney360* debate. So, read it carefully. There are bound to be differences in how this is viewed in those in private practice versus those in academic medical centers. People can make choices in their own careers as they see fit of course—but what should we be doing in training? That is the question at hand.

I encourage you all to read through the two arguments made by our esteemed authors. I know how I feel, but this is a decision we all must make together as a field.

Disclosures

The author has nothing to disclose.

Funding

None.

Acknowledgments

The content of this article reflects the personal experience and views of the author and should not be considered medical advice or recommendation. The content does not reflect the views or opinions of the American Society of Nephrology (ASN) or *Kidney360*. Responsibility for the information and views expressed herein lies entirely with the author.

Author Contributions

U.C. Brewster wrote the original draft and reviewed and edited the manuscript.

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Received: January 31, 2022 **Accepted:** February 15, 2022

See related debates, "Kidney Biopsy Should Remain a Required Procedure for Nephrology Training Programs: PRO," and "Kidney Biopsy Should Remain a Required Procedure for Nephrology Training Programs: CON," on pages 1664–1666 and 1667–1669, respectively.