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Identifying Gaps in Kidney Care for People Living with HIV: Insights from a Survey

Ryan Quigley:
This is *Clinician's Roundtable* on ReachMD, and I'm Ryan Quigley. Here with me today to discuss the research they presented at IDWeek 2025, which surveyed clinicians who evaluate and manage kidney dysfunction among people living with HIV, are Drs. Amanda Binkley and William Short. Dr. Binkley is an Infectious Diseases Clinical Pharmacy Specialist and Residency Program Director for the PGY-2 Infectious Diseases Pharmacy Residency at Penn Presbyterian Medical Center in Philadelphia. Dr. Binkley, welcome to the program.

Dr. Binkley:
Thank you so much for having us here today.

Ryan Quigley:
And Dr. Short is an Associate Professor of Medicine in the Division of Infectious Diseases at the University of Pennsylvania Perelman School of Medicine, also in Philadelphia. Dr. Short, it's great having you with us as well.

Dr. Short:
Great, thank you so much for having me. I'm happy to be here to share our research findings.

Ryan Quigley:
Absolutely. So starting with you, Dr. Binkley, what prompted you to investigate how clinicians assess and manage kidney dysfunction in people living with HIV?

Dr. Binkley:
Sure, that's a great question. So we know individuals with HIV have an increased risk of kidney disease, requiring evaluation for their medication dosing and antiretrovirals as well as their other medications that they're taking or receiving for their comorbidities. We have seen variability in practice. So the initial goal of the project was to provide education to providers regarding assessment of kidney function in persons with HIV. In initial discussions with our team members, including our nephrologist colleagues, the team identified that it might be helpful to actually assess the current state and identify what the current practices are for our clinicians in order to really tailor that education based on the information gathered during the survey, so that prompted the current project that we're presenting and discussing today.

Ryan Quigley:
Thank you for that overview. Now, with that background in mind, let's turn to you, Dr. Short. Let's focus on the survey's design. Who responded, how was it distributed, and what key domains did it explore?

Dr. Short:
Sure, it's a great question. So we thought long and hard about how to get this information, and what we came up with was we actually did a cross-sectional survey, and what's critical is we wanted to find who were the groups of people that we really wanted to target. We wanted to get the answers from frontline clinicians who are doing this every day because that's who we wanted to target with our messaging. And so what we did is we used the American Academy of HIV Medicine's weekly newsletter. They send that out as a blast

to everyone. It goes out to thousands of participants. And we also asked that they send two separate standout emails. The reason being that, in the newsletter, it got buried somewhere in the middle, and if you didn't open it, people would turn it off. So we sent out two separate e-mail letters. So that's really the way we designed it and who we thought would best get the messaging.

In terms of who responded, we had about 142 responses, and when you looked at who responded, it's who we wanted. It was largely physicians and advanced practice providers. About half of the respondents were pharmacists, and we went back and forth about why we thought that was, and I think the messaging was around antiretroviral prescriptions. And we went back and forth on if we should change the wording because we think maybe some of the pharmacists would look at it and say, "Hmm, we don't prescribe and do this." So I think that's why we got an underrepresentation for pharmacists, but still, we had a good number that were represented.

And the domains we wanted to talk about were the things that Dr. Binkley commented on. So one, we wanted to look at "What were your current practices? How do you assess kidney function?" We thought, let's just start very broad with that. Then we looked at "What are the knowledge that they had of best clinical practices?" And then finally, the critical question—and again, we work with nephrologists who see a lot of our patients living with HIV—and we said, "What were the referral thresholds? When did you refer to a nephrologist? When did you feel like you were comfortable managing versus 'I'm going to send this person to a nephrologist?" And I think that was key for us, and they were the three domains that we really focused on.

Ryan Quigley:
Thank you for that. Now, if we zero in on the findings, one of the key takeaways was the variability in kidney function assessment. So, Dr. Binkley, what did the results reveal about current diagnostic practices? And where are the biggest gaps currently?

Dr. Binkley:
When we looked at diagnostic practices, what we had the respondents and the clinicians respond to was looking at what their current practices are with use of serum creatinine, cystatin C, urinalysis, urine protein assessment, 24-hour urine creatinine clearance, or renal ultrasound, and what they're currently using in practice to assess kidney health assessment in their patients living with HIV. What the results demonstrated was that the serum creatinine was used as the primary modality for assessment of renal function, followed by urinalysis and then urine protein assessment. When looking at the individual providers, the results did demonstrate that more of the advanced practice providers, or APPs, are using the urinalysis as well as urine protein assessment to assess the patient's renal function as compared to the physician and the pharmacist colleagues.

The one key finding is that there is a lack of use and awareness regarding cystatin C, with only 9 out of the 142 responding clinicians using cystatin C currently in practice. Renal ultrasounds and 24-hour urine creatinine clearance are used even less frequently across all provider groups.

Ryan Quigley:
For those just joining us, this is *Clinician's Roundtable* on ReachMD. I'm Ryan Quigley, and I'm speaking with Drs. Amanda Binkley and William Short about research they presented at IDWeek 2025 that involved a clinician survey on managing kidney dysfunction in people living with HIV.

So if we come back to you, Dr. Short, the survey also uncovered knowledge gaps in how clinicians calculate kidney function for drug dosing. Can you tell us more about those findings?

Dr. Short:
Yeah, absolutely. Really, it was all over the place. Some use the estimated glomerular filtration rate. Some use Cockcroft-Gault for creatinine clearance or serum creatinine. Some consulted the pharmacist. Some consulted a specialist. And then when we started really digging down into the nitty gritty of it, we found that serum creatinine was routinely checked across all providers. And while that sounds great, the problem is a lot of our current antiretrovirals interfere with receptors in the kidney and they block secretion of creatinine and, therefore, mess up the interpretation. And so using that alone is probably not the best. And then when we looked at how they do the drug dosing, only a third of physicians and advanced practice providers were actually using the new CKD-EPI equation. They continue to rely on older methods, such as Cockcroft-Gault and MDRD, and that's not aligning with current guidelines on how to dose in kidney disease. So again, that was really important.

I think Dr. Binkley touched on it, but one of the problems is there's not clear guidance on the use of cystatin C. And just as a brief

background on cystatin C, at one point it was just a research marker, but the good thing about this is it's produced by a lot of the nucleated cells in your body, and we know that it freely goes through. It's filtered—it's not secreted—so it's a really good marker, and so a lot of us are using it in clinical practice. And is it all the time? No. But when we know that there are certain drugs that target areas where maybe your creatinine can get blocked or increased, it really helps tease out if it's really bad kidney function or a drug effect.

Ryan Quigley:
Thank you for that, Dr. Short. And now to dive in a little bit deeper, when it comes to the findings on nephrology referrals—Dr. Binkley, this is for you—were there any surprising trends or inconsistencies in clinician thresholds?

Dr. Binkley:
When looking at the referral reasons for nephrology consultation, we assessed several different areas, including elevated creatinine, reduced GFR, proteinuria, hematuria, those with kidney stones or hypertension, and electrolyte abnormalities. The majority of all clinicians, including physicians, advanced practice providers, and pharmacists, do refer to nephrology for those individuals with a reduced GFR, not necessarily an elevated serum creatinine in isolation. Interestingly enough, the findings demonstrate that there were increased referral rates for both advanced practice providers, or APPs, and pharmacists as compared to physicians. The biggest differences in referral rates across the providers were seen in reduced GFR and those with kidney stones. When looking at individuals who have electrolyte abnormalities, the advanced practice providers had the highest rate of referrals at 83 percent, followed by physicians at 69 percent and pharmacists at 59 percent. So again, we are seeing a wide variability across the clinicians based on the referrals for a nephrology consultation.

Ryan Quigley:
So given all these results, let's turn to you, Dr. Short, for the final word. What next steps would you recommend to improve kidney care for people living with HIV?

Dr. Short:
Yeah, that's an amazing question. Prior to constructing the survey, we already knew there was going to be a knowledge gap, so we started planning ahead. And actually, this whole thing came about with the study design and saying, "Let's write a manuscript." Let's do that with the nephrologist. And then we said, "Why don't we do a needs assessment first?" Right? "Why not just figure out where people are?" So we started out with this, but our plan is that we need to take the results that we got in the survey, map it out, figure where the knowledge gaps were, and then we're going to do two things. So the first one is a webinar, and we've already started the planning phases for it. We want to make sure we get the right audience. We want to make sure we get frontline clinicians who need this data. We want to share the results, similar to what we're doing now—that will be a smaller part—but then really hone in on when you're assessing kidney function in patients on X, you would do this. This is when it is best to refer, when it's best to do this, and when you do an ultrasound or imaging. So we really want to put that all together in a webinar. So that's one piece of what we want to do.

And then the second one is we want to follow it up with a manuscript; I know we've already started working on the manuscript. And we want to make it more clinically focused, so we want to put a case together of someone who's on a drug that may interfere with creatinine excretion or secretion, and then how you handle that. I think people learn best from case-based approaches. So our plan moving forward is: get this out, have a long discussion—Dr. Binkley and I will be at the poster at IDWeek talking about this—meet with providers, share with them that we are going to do a webinar, and then do a follow-up manuscript. And I think that would be really helpful for individuals.

Ryan Quigley:
With those calls to action in mind, I want to thank my guests, Drs. Amanda Binkley and William Short, for joining me to discuss how we can move towards smarter, more informed care for people living with HIV. Dr. Binkley, it was great having you on the program today.

Dr. Binkley:
Thank you so much, Ryan, for having us here to share the information and the results from our survey.

Ryan Quigley:
Of course, my pleasure. And, Dr. Short, it was great having you on the program as well.

Dr. Short:

Great. Thanks so much. I just want to add as we continue to advance care for people living with HIV, protecting renal function is a vital part, and it's been a pleasure to share these insights with you today on ReachMD.

Ryan Quigley:
Absolutely, and we appreciate it. For ReachMD, I'm Ryan Quigley. To access this and other episodes in our series, visit *Clinician's Roundtable* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening.