Transcript Details
This is a transcript of an educational program. Details about the program and additional media formats for the program are accessible by visiting: https://reachmd.com/programs/heart-matters/uacr-routine-part-of-diabetes-care/54799/

ReachMD
www.reachmd.com
info@reachmd.com
(866) 423-7849

Making UACR a Routine Part of Diabetes Care

Announcer:
You're listening to *Heart Matters* on ReachMD. Here's your host, Dr. Steve Jackson.

Dr. Jackson:
This is *Heart Matters* on ReachMD, and I'm Dr. Steve Jackson. Joining me to discuss the relationship between urine albumin-to-creatinine ratio, or UACR for short, and cardiovascular and renal risk in patients with diabetes is Dr. Robert Mentz. He's an Associate Professor of Medicine and Population Health Sciences at Duke University in Durham, North Carolina. He's also a member of the Duke Clinical Research Institute.

Dr. Mentz, welcome to the program.

Dr. Mentz:
Thank you so much. I'm looking forward to our discussion today.

Dr. Jackson:
So let's start with the big picture, Dr. Mentz. Why is it important to be thinking about UACR in patients with diabetes, particularly when it reaches or exceeds 30 milligrams per gram?

Dr. Mentz:
Thank you so much. This is a really important question as we think about how we incorporate UACR into our routine use. So, as you noted in the introduction, urinary albumin-to-creatinine ratio is now recognized as an important prognostic marker, and it helps guide our therapies. So it's another tool in our toolkit.

And, as you're noting, the measure or the cut point we use is a UACR greater than or equal to 30 milligrams per gram. And that's important. because that helps define a clinically meaningful level of urine albumin and is associated with a marked increase in both kidney and cardiovascular risk. And, importantly, it can be one of the earliest signs to help key in that there is underlying kidney damage, especially in patients that have diabetes.

As I think of my clinical practice, we used to focus on creatinine. Then we understood the greater utility of GFR, but this is actually identifying higher-risk patients even when their GFR is still preserved. So it acts as a signal that can help us think about reassessing risk, allowing for earlier intervention with therapies—as we'll go through—and it really should be a routine measure that we're checking in our clinical practice, both in the hospital and in the outpatient setting.

Dr. Jackson:
And with that in mind, could you walk us through what's happening biologically when albuminuria is present, and how that connects to the cardiovascular risk we see in these patients?

Dr. Mentz:
Absolutely. So we've talked a little bit about UACR and how we measure this in practice. But what is actually happening? Why is this a useful measure?

UACR actually reflects underlying endothelial dysfunction and increased vascular permeability at the kidney level, right at the level of the glomerulus. And it can help signal systemic vascular injury. But it's not just confined to the kidney. It captures the CKM, or this cardio-kidney-metabolic framework. It's associated with inflammation and prothrombosis, and it correlates with atherosclerosis and heart failure risk, independent of traditional risk factors.

So it captures this dimension of risk that's not fully explained by other things we're measuring historically in practice, like blood pressure, lipids, or A1C. So it adds additional insights that brings together these different pieces.

So, in summary, we think about endothelial dysfunction at the level of the kidney, and systemically, we can think about pro-inflammation and prothrombosis, and it brings together ASCVD as well as heart failure.

Dr. Jackson:
Now, when it comes to screening guidelines, the American Diabetes Association and KDIGO recommend routine UACR testing at least annually in patients with type two diabetes, and more frequently in those with established kidney disease. However, we're still seeing gaps in practice. What do you think is driving this disconnect between guideline recommendations and real-world testing, and where are the biggest opportunities to improve early detection?

Dr. Mentz:
So I think this is really a foundational question and concept, and when I'm talking to different communities about UACR, one of the first things I ask is, raise your hand if you're checking this. And what I've seen over recent years is that the number of hands that are going up is starting to rise.

Interestingly, if you ask, well, what about two years ago? Were you checking it? There are nearly no hands going up. So the foundational concept is it has to be about awareness. Yes, we routinely check a basic metabolic panel or a comprehensive metabolic panel. You might think about other blood counts, but if we're not checking urine, you're going to miss out on this important measure.

And it's helpful that, as you noted, we have guidelines from the ADA and KDIGO to say, in patients with diabetes, we really need to be checking a UACR annually. So first, you have think about it and you have to incorporate it into your workflow. What we've found is that there really is this perception gap. Historically, individuals have asked, do I really only need to think about albumin if I'm thinking about kidney disease, or if I'm seeing them as a nephrologist or a kidney doctor? And increasingly, there's this recognition that as primary care clinicians and cardiovascular clinicians, and in nephrology communities, really broadly, we need to be thinking about albuminuria. So the missed test is a huge missed opportunity to help our patients think about risk stratification, treatment initiation, and intensification.

So, in summary, I think it really takes educational efforts and system-level fixes. We need to have reflex testing, order kits, and electronic health record prompts. And those have been shown in other spaces to increase testing and increase action by clinicians. In summary, we have to think about UACR, incorporate it into our routine practice, and have important guideline recommendations to help really drive the data into practice.

Dr. Jackson:
It's nice to see that testing is evolving like you're describing. For those just tuning in, you're listening to Heart *Matters* on ReachMD, and I'm Dr. Steve Jackson. I'm speaking with Dr. Robert Mentz about UACR's connection to cardiovascular and renal health in patients with diabetes.

So, Dr. Mentz, now that we've talked about detection and risk, let's shift over to what this means for earlier intervention. The FIGARO-DKD trial really has shifted our perspective by showing that in patients with type two diabetes and earlier-stage CKD, finerenone reduced cardiovascular outcomes, particularly in heart failure events. How do these findings change the way you interpret elevated UACR in patients who might otherwise appear low risk, and how does that influence when you start thinking about earlier intervention?

Dr. Mentz:
So this is a really important concept and a foundational piece. Yes, we need to check UACR, but what do we do with that information? And historically, in patients with diabetes and kidney disease, looking for albuminuria is a key underlying component of this. We would think about ACE inhibitors and ARBs. So that's a foundational therapy. But now, we have important new insights with the nonsteroidal MRA finerenone. And what it's shown us is that we actually—through use of this therapy on a background of ACE inhibitors and ARBs—can reduce cardiovascular risk further and reduce cardio-kidney risk further, and importantly, it's really driven by a reduction in heart failure events.

So you can start to think how you incorporate this into practice. Your patient has diabetes, they've got kidney disease. We check a UACR. They're on an ACE inhibitor or an ARB. We have additional recommendations and our guidelines, which are based on robust randomized clinical trials—actually, multiple clinical trials showing the benefits of the non-steroidal MRA finerenone.

So this really challenges this assumption that if their GFR is normal, they're low risk. No. We have to make sure we're not missing underlying albuminuria. It shows us that moderately increased albuminuria is this early sign of a vulnerable patient population. We can't think that if they've got a normal GFR, they're stable and we don't need to worry about this. We have to get over that clinical inertia.

And now, we have, with the nonsteroidal MRA finerenone, cardio-kidney benefits and a reduction in heart failure. So I think that this is helpful, because it repositions UACR as a trigger, not even just for early risk recognition, but for actually prompting clinical change, getting over this inertia, and driving initiation and titration of therapies. And it supports this idea that we have to act early before structural kidney disease, worsening renal function over time, and worsening albuminuria. And I can use this in conversations with my patients, that we're going to check their urine studies and we'll use this to help guide therapies. We can monitor this over time to understand how their risk is being modified.

Dr. Jackson:
Building on that, emerging data from studies like the CONFIDENCE trial are exploring combination approaches like finerenone with SGLT2 inhibitors, with the goal of achieving additive renal and cardiovascular benefits earlier in the disease course. How do you see this evolving evidence shaping your approach to treatment intensification in patients with persistent albuminuria?

Dr. Mentz:
So you're nicely building out this story of kidney disease, albuminuria, cardio-kidney risk using ACE inhibitors and ARBs, but adding additional therapies. On top of that, we have really robust clinical trial data in CKD with SGLT2 inhibitors reducing cardio-kidney risk, and now we have additional data from CONFIDENCE about the incremental benefits of the non-steroidal MRA finerenone.

So it's really this signal toward thinking about combination therapies and reframing this concept of polypharmacy that this is actually the number one way to help modify underlying cardio-kidney risk: by targeting these complementary pathways. So we can aim for these, probably not even just additive, but really force-multiplying cardio-kidney benefits beyond monotherapy.

So it reflects the shift from more of a reactive approach to initiation and titration of therapies to a proactive one. Let's understand risk and guide initiation and intensification of these therapies. And again, I'll return to this concept of positioning albuminuria as a rationale for earlier layered treatment.

That does raise practical questions around sequencing, tolerability, and patient selection. How do we initiate and rapidly titrate in some of these therapies for patients? But understand that it might take an individualized approach to best support long-term adherence in the individual population, or the individual patient sitting in front of you in clinic.

Dr. Jackson:
And finally, Dr. Mentz, to bring all of this together, what steps can clinicians take to ensure UACR becomes a consistent and actionable part of routine diabetes care?

Dr. Mentz:
I'll admit in full disclosure, a couple years ago, I wasn't checking it. With the growing data and education from my cardio-kidney-metabolic colleagues, I'm thinking about, you have to have UACR on your list of key labs you're going to check.

So this is a key component. You're going to say to your patients, we're going to get your urine on the way out of clinic, and then you're going to go get your blood work. So it's as easy as that. Incorporate that into your workflow and your order sets. It's an expected part of diabetes care. It's not an optional add-on, getting a urinary dipstick. You're going to miss this. You have to check a UACR.

So it helps drive action. We think about risk, therapy, and initiation optimization, and then we follow this level over time so we can incorporate this into our workflows. Think about team-based multidisciplinary care—make sure you're communicating to the endocrinologist, the primary care doctor, and the nephrologist, and confirm the persistence of this or the changes in UACR over time. I found this really valuable to help drive clinical care and help improve outcomes for our patients.

Dr. Jackson:
With those practical takeaways in mind, I want to thank my guest, Dr. Robert Mentz, for joining me to discuss how UACR can indicate cardiovascular and renal risk in patients with diabetes. Dr. Mentz, it was great having you on the program.

Dr. Mentz:
Thanks so much, Steve.

Announcer:
You've been listening to *Heart Matters*. To access this and other episodes in our series, visit *Heart Matters* on ReachMD.com, where you can Be Part of the Knowledge. Thanks for listening!