

Kidney health checks: Whose role is it anyway?

Summary and call to action

Cardiovascular, kidney and metabolic conditions are closely connected. Problems in one system often drive deterioration in another, creating a vicious cycle that accelerates disease progression. In this commentary, the authors explore the key tests for chronic kidney disease (CKD), with information to help improve patient care through routine use of a urinary albumin-to-creatinine ratio (uACR) test in people at risk, to enable early detection of CKD and earlier intervention to slow CKD progression and protect both kidney and cardiovascular health.

What can you do today to make a clinical difference to your patients?

1. "Any wee will do" – **organise a uACR test** for your patients at risk of CKD, including those living with diabetes, hypertension or cardiovascular disease.
2. **Download Kidney Research UK's [uACR information leaflet](#)** and put it up in your waiting rooms to support patient understanding of the importance of kidney health.
3. **View our free professional educational resources [available here](#)** and summarise the information to all staff in your primary care practice.

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What is the uACR test?

The urine albumin-to-creatinine ratio (uACR) test measures the amount of a protein called albumin in the urine.

In healthy kidneys, only a small amount of albumin is filtered from the blood into the urine. In the early stages of CKD, the amount of albumin leaking into the urine is abnormal (increased), but still very small. A simple urine dipstick test strip will not be sensitive enough to detect any changes – the sample needs to be sent to a laboratory for testing.

There are three recognised stages of albuminuria:

- A1 – normal to mildly increased urine protein levels (lower than 3 mg/mmol).
- A2 – moderately increased urine protein levels (3–30 mg/mmol).
- A3 – severely increased urine protein levels (>30 mg/mmol).

What is the eGFR blood test?

The main function of the kidneys is to clear water-soluble waste products (such as creatinine) from the blood. The efficiency of clearance is measured using the glomerular filtration rate (GFR). By using a blood test to measure

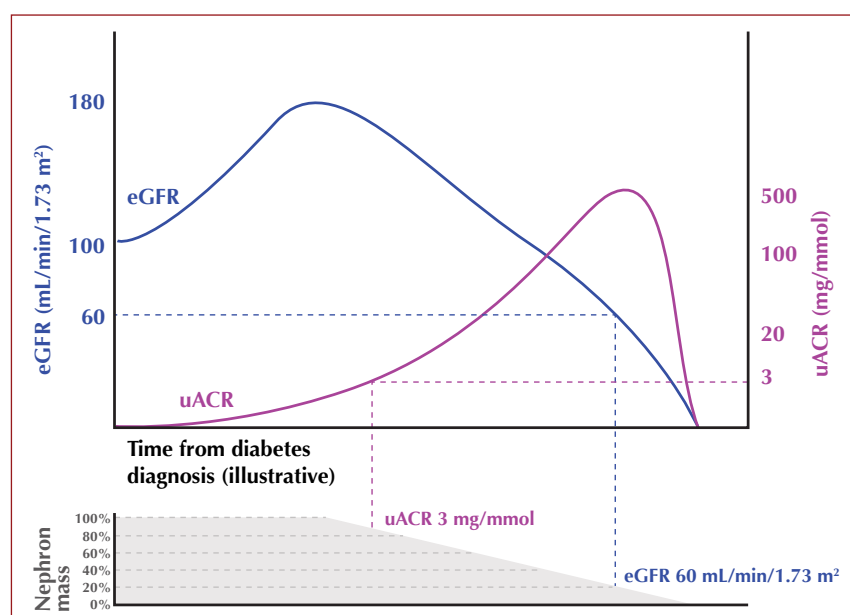


Figure 1. Time course of eGFR, uACR and nephron mass in chronic kidney disease (CKD) associated with diabetes (adapted from Tonnejck et al, 2017).

In early-stage CKD, nephron mass is likely already reduced even though the eGFR appears normal. By the time eGFR reaches 60 mL/min/1.73 m², nephron mass could have fallen (irreversibly) by as much as 80%.

Table 1. Barriers to urinary albumin:creatinine ratio (uACR) testing.

Individual barriers	Operational barriers	Education/training barriers
Lack of understanding of importance of uACR testing for kidney health	Time and workforce constraints	Lack of equitable access to education/CPD for practice staff
Practical barriers including size of urine pots and messy nature (similar challenges in stool sample collection/returns)	Appointment timings/surgery opening times for reaching underserved groups	Lack of awareness of nature of uACR testing amongst non-clinical (patient-facing) staff
Complexity of living with multiple long-term conditions; number of appointments; continuity of care	Risk-stratifying those at greatest risk/searches	Removal from Quality and Outcomes Framework since 2013 (however, this is being added for 2026/27 [NHS England, 2026])
Myth of needing to provide an early-morning sample and practical issues of returning this	Access to clinic space/timings of seeing complex patients with multiple conditions	



Figure 2. Quotes from interviews conducted with people living with diabetes and CKD.

References

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creatinine levels, alongside other information such as height, weight and sex, a person’s estimated GFR (eGFR) can be calculated.

Healthy kidneys typically filter more than 90 mL each minute (adjusted for body size). A lower rate than this may indicate CKD.

Why is measuring eGFR and uACR important?

uACR and eGFR measurements are of **equal importance** in diagnosing the stage of CKD and the long-term risk of kidney failure. However, **uACR is more sensitive** in detecting early nephron loss, making it an invaluable test for **detecting CKD early**.

Figure 1 (previous page) illustrates the importance of measuring uACR as an early detector of CKD. In early-stage CKD, nephron mass is likely already reduced even though the eGFR appears normal. By the time eGFR reaches 60 mL/min/1.73 m², nephron mass could have fallen – irreversibly – by as much as 80%.

In contrast, a uACR at the clinical threshold of 3 mg/mmol will identify CKD much earlier, whilst nephron mass is still largely preserved, allowing intervention to slow CKD progression and protect kidney and cardiovascular health.

Recent research has also found that uACR is an independent predictor of cardiovascular disease, such as coronary artery disease, stroke, heart failure and arrhythmias, and microvascular disease (Barzilay et al, 2024). Thus, earlier detection of albuminuria also enables earlier intervention to improve cardiovascular outcomes.

A tool developed by Boehringer Ingelheim in collaboration with KDIGO (available at: <https://kdigo-uk.vercel.app/>) enables clinicians to stratify both cardiovascular and CKD risk by entering eGFR and uACR values. Outputs include the frequency of monitoring required and the risk of all-cause mortality, heart failure, kidney failure requiring replacement therapy, hospitalisation and myocardial infarction/stroke, and the tool also links to relevant guidelines.

uACR measurement remains the least achieved care process

Despite the importance of uACR as a risk predictor for multiple conditions, and despite its inclusion in the 9 key care processes recommended by NICE (2023a and 2023b) for people with diabetes, testing rates remain low. In 2024–25, whilst HbA_{1c} testing was completed in 91.9% of people with type 2 diabetes, uACR was only measured in 68.6% (NHS Digital, 2026). This rate was even lower in people with type 1 diabetes, at 54.8%. You can view your local levels of uACR testing at the [National Diabetes Audit](#).

A number of barriers underlie this low rate of testing (Table 1). People living with diabetes and CKD have also highlighted the importance of wanting to understand the connection between diabetes and kidney disease, and the interventions available to prevent diabetes complications (Figure 2).

To build on the knowledge above and learn more about the risk factors, tests, and management of people living with diabetes and/or CKD, as well as patient stories, please view our two mini-modules on kidney health and kidney disease, co-created with Diabetes UK (available at: <https://cpd.diabetes.org.uk/node/157>).