

Importance of urine ACR and eGFR summary of key information, 2023

1. Reduced **eGFR** is an independent risk factor for CVD.
2. Increased **urine ACR** (UACR) is an independent risk factor for CVD and heart failure.
3. Based on recent trials, albuminuria/ \uparrow UACR is recognized as one of the strongest predictors of CKD progression and heart failure events even when there is minimal decrease in eGFR.
4. Albuminuria is considered a marker of inflammation and endothelial damage in the kidney and in blood vessels elsewhere in the body.

NEED TO MONITOR BOTH eGFR and urine ACR

- **In people with type 2 diabetes, diabetic kidney disease (DKD) may have normal eGFR with elevated albuminuria, or reduced eGFR with minimal albuminuria.**
- **\downarrow eGFR + \uparrow UACR are synergistic in increasing risk of CVD/HF and progressive CKD.**
- **Consider using the KDIGO heat map to assess risk of CKD progression.**

KDIGO and American diabetes Association -summary of 2022 consensus statement for treatment of diabetic nephropathy:

1. RAAS inhibition with ACE inhibitor or ARB at maximally tolerated dose.
2. SGLT2i (for people with type 2 diabetes and eGFR > 20 mL/min with normal or elevated urine ACR).
3. Nonsteroidal MRA (if eGFR > 25 mL/min, normal serum potassium and urine ACR > 3 mg/mmol, despite maximal tolerated dose of RAAS inhibitor).
4. GLP-1 receptor agonist (to achieve additional CVD benefit/risk reduction; CKD specific trial data to be released in 2024).

Add medications sequentially over at least a few months, with monitoring of renal function and serum potassium; if SGLT2i not tolerated or if eGFR > 60 ml/min can add nonsteroidal MRA after RAAS inhibition.

Consider using doses used in CVOT/outcome trials.

To slow progression of CKD and achieve cardiorenal benefit the goal is to \downarrow UACR by 30% if UACR > 30 mg/mmol.