American Heart Association.

# Top Take-Home Messages
## for Nephrologists

**Adapted from**: 2026 AHA/ACC/ADA/ASN Guideline for the Prevention, Detection, Evaluation and Management of Cardiovascular-Kidney-Metabolic Syndrome

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### 1. Use baseline KDIGO risk categories to stratify CKD into the CKM syndrome staging system.

Among individuals with a persistent estimated glomerular filtration rate (eGFR) < 60 mL/min/1.73 $m^2$ and/or urine albumin-to-creatinine ratio (UACR) ≥ 30 mg/g, moderate- to high-risk chronic kidney disease (CKD) by Kidney Disease: Improving Global Outcomes (KDIGO) classification is a criterion for cardiovascular-kidney-metabolic (CKM) syndrome stage 2. Very high-risk CKD is considered a subclinical cardiovascular disease (CVD) risk equivalent (CKM syndrome stage 3) even in the absence of other subclinical CVD markers. *(Section 2.3)*

### 2. Use a risk-based approach to screening with eGFR/UACR in CKM syndrome stages 2-4.

Among individuals with CKM syndrome stages 2-4, at least annual assessments of eGFR and UACR are recommended to guide cardiovascular and kidney health optimization, and to evaluate residual risk to guide therapy intensification. More frequent testing is guided by higher baseline CKD risk categories. *(Section 3.1.1)*

### 3. For patients with CKD with CKM syndrome stage 2-4, perform yearly testing for metabolic risk factors.

Among patients with CKD with CKM syndrome stage 2-4, yearly testing for body mass index, waist circumference, lipids, blood pressure and glycemic status are indicated for the timely identification of metabolic risk factors such as type 2 diabetes (T2D), hypertension, obesity and dyslipidemia, which frequently overlap with CKD. Guideline directed management of these conditions with lifestyle modification and targeted pharmacotherapy is important for improving cardiovascular and kidney outcomes in CKM syndrome. *(Section 3.1.1)*

4. **RASi remain fundamental for patients with CKM Syndrome and CKD.**

   For adults with CKM syndrome with CKD and T2D or CKD without T2D but with albuminuria ≥30 mg/g, and with eGFR ≥30 mL/min/1.73 $m^2$ the use of renin-angiotensin aldosterone inhibitors (RASi) is recommended at the maximum tolerated dose to reduce the loss of kidney function and lower cardiovascular disease risk. *(Section 5.5.4)*

5. **Use SGLT2i for patients with CKM Syndrome and CKD with T2D or CKD with albuminuria in the absence of T2D.**

   In adults with CKM syndrome with CKD and T2D or CKD without T2D but with UACR ≥200 mg/g, and with eGFR ≥20 mL/min/1.73 $m^2$, use of an sodium glucose cotransporter 2 inhibitor (SGLT2i) is recommended to reduce the loss of kidney function and to lower the risks of heart failure (HF) hospitalization and CVD mortality. If albuminuria is between 30-199 mg/g in the absence of T2D, consider the use of SGLT2i for kidney and cardiovascular benefit. *(Section 5.5.4)*

6. **If albuminuria persists on first-line therapies among patients with CKD and T2D, a nonsteroidal mineralocorticoid receptor antagonist is recommended.**

   In adults with CKM syndrome who have CKD, T2D, and UACR ≥30 mg/g despite RASi and SGLT2i, with eGFR ≥25 mL/min/1.73 $m^2$, the addition of a nonsteroidal mineralocorticoid receptor antagonist (nsMRA) is recommended to reduce the risks of kidney function decline and CVD. *(Section 5.5.4)*

7. **If albuminuria persists on first-line therapies among patients with CKD and T2D, a GLP-1 RA is recommended.**

   In adults with CKM syndrome who have CKD, T2D, and UACR ≥100 mg/g despite RASi and SGLT2i, treatment with a glucagon-like peptide-1 (GLP-1)-based drug with proven cardiovascular benefit is recommended to reduce the risks of progressive CKD and to lower CVD risk. The prioritization of a GLP-1-based drug versus nsMRA in this patient population can be based on comorbidities, with obesity, uncontrolled diabetes and metabolic dysfunction–associated steatotic liver disease (MASLD) favoring the initial use of GLP-1-based therapy. *(Section 5.5.4)*

8. **Continue kidney-protective treatments if tolerated into CKD G4 and G5.**

   Among adults with CKD who are being treated with kidney protective therapies for both kidney and cardiovascular benefit and whose eGFR falls below drug-specific initiation thresholds, it is reasonable to continue those treatments as safely tolerated. Few randomized trials have targeted this group, but several have allowed continued use of kidney-protective drugs, with demonstrated net clinical benefits in CKD G4-G5. *(Section 6.5)*

## 9. There are limited data to inform treating CKM syndrome in patients with kidney failure, which represents an unmet research need.

In individuals with CKM syndrome who progress to kidney failure, there are less robust data with guideline directed medical therapy benefits and safety considerations due to limited representation in pivotal trials. This is an area for future investigation and a major unmet need. *(Section 9)*

## 10. For patients with CKD in CKM syndrome, with overlapping T2D or CVD, engage interdisciplinary teams to support holistic CKM syndrome care.

Team-based approaches to care are advised for patients with multisystem disease in CKM syndrome, to support the utilization of appropriate guideline directed medical therapy and the provision of holistic care for individuals with interrelated conditions. *(Section 5.1)*