

# KIDNEY HEALTH EVALUATION FOR PATIENTS WITH DIABETES

(KED) HEDIS Measure<sup>1</sup>

## MEASURE DESCRIPTION:

The percentage of members 18–85 years of age with diabetes (type 1 and type 2) who received a kidney health evaluation, defined by an estimated glomerular filtration rate (eGFR) and a urine albumin-creatinine ratio (uACR), during the measurement year:

- At least one eGFR is required during the measurement period
- At least one uACR is required during the measurement period - The uACR is identified by the member having **both** a quantitative urine albumin test **and** a urine creatinine test with service dates four or less days apart
- Care must be captured administratively for the KED Measure. Medical record submission will not count.

A corresponding Kidney Health Evaluation for Patients with Diabetes MIPS measure will be available in 2023.

## ELIGIBLE POPULATION

- People 18–85 years with type 1 or type 2 diabetes.
- People with evidence of End Stage Kidney Disease (ESKD) or who are in palliative care are not included in the measure.

## MEASURE BASELINE

Approximately 40% of people with diabetes receive eGFR and uACR testing annually.<sup>2</sup>

## MEASURE RELEVANCE

Chronic kidney disease is a disease multiplier significantly increasing risk for cardiovascular events and mortality.<sup>3</sup> Annual testing, early recognition, and diagnosis can slow progression and reduce rising cardiovascular risk.<sup>4,5</sup> At present, as many as 50% of people in advanced CKD remain undetected in primary care settings.<sup>6</sup>

CKD is classified based on: -Cause (C) -GFR (G) -Albuminuria (A)				Albuminuria categories Description and range		
				A1	A2	A3
				Normal to mildly increased <30 mg/g <3 mg/mmol	Moderately increased 30-299 mg/g 3-29 mg/mmol	Severely increased ≥300 mg/g ≥30 mg/mmol
GFR categories (ml/min/1.73m <sup>2</sup> ) Description and range	G1 <sup>†</sup>	Normal or high	≥90	1 if CKD	Treat 1	Refer* 2
	G2 <sup>†</sup>	Mildly decreased	60-89	1 if CKD	Treat 1	Refer* 2
	G3a	Mildly to moderately decreased	45-59	Treat 1	Treat 2	Refer 3
	G3b	Moderately to severely decreased	30-44	Treat 2	Treat 3	Refer 3
	G4	Severely decreased	15-29	Refer* 3	Refer* 3	Refer 4+
	G5	Kidney failure	<15	Refer 4+	Refer 4+	Refer 4+

<sup>†</sup> CKD Stage G1 and Stage G2 require albuminuria or other markers of kidney damage for diagnosis.

CKD Stage	ICD-10 Codes
Stage 1	N18.1
Stage 2	N18.2
Stage 3	N18.3
Stage 4	N18.4
Stage 5	N18.5
CKD unspecified	N18.9

The eGFR and albuminuria grid depicts the risk of progression, morbidity, and mortality by color, from lowest to highest (green, yellow, orange, red, deep red). The numbers in the boxes are a guide to the frequency of assessment annually. Green: annual assessment for those at risk. (Green can reflect CKD with normal eGFR and albumin-to-creatinine ratio (uACR) only in the presence of other markers of kidney damage, such as imaging showing polycystic kidney disease or kidney biopsy abnormalities); Yellow suggests assessment at least once per year; Orange suggests assessment twice per year; Red suggests assessment three times annually; Deep red suggests assessment four times annually. These are general parameters only, based on expert opinion and must consider underlying comorbid conditions and disease state, as well as the likelihood of impacting a change in management for any individual patient. "Refer" indicates nephrology services are recommended. \*Referring clinicians may wish to discuss with their nephrology service, depending on local arrangements regarding treating or referring.<sup>7</sup>

## PATIENT SAFETY<sup>8-11</sup>

- **eGFR < 60**
  - Consider eGFR in drug dosing
  - Reduce risk of AKI volume depletion
- **eGFR 45 to < 60**
  - Avoid prolonged NSAIDs
  - Hold metformin for iodinated contrast imaging procedures
- **eGFR 30 to < 45**
  - Avoid prolonged NSAIDs
  - Use metformin with close monitoring at 50% dose
  - Consider iodinated contrast-induced AKI prevention in high-risk circumstances
  - Adjust DOAC dose based on FDA prescribing guides
  - Consider avoiding PICC lines; use single and double lumen central catheters instead
- **eGFR < 30**
  - Annual comprehensive medication review for dosing and other safety concerns
  - Avoid any NSAIDs, bisphosphonates, and metformin
  - Continue SGLT-2i until dialysis (if tolerated); Refer to FDA prescribing guides for guidance on initiating SGLT-2i in G4 CKD
  - Iodinated contrast-induced AKI prevention recommended; consider isotonic
  - Adjust DOAC dose or avoid depending on FDA prescribing guides
  - Gadolinium contrast = risk of nephrogenic systemic fibrosis
    - Consult radiology & nephrology, macrocyclic agent preferred and minimize dose
  - Avoid PICC lines, use single and double lumen central catheters instead
  - Monitor PT/INR closely if on warfarin (increased bleed risk)

## PREVENTING CKD PROGRESSION IN PEOPLE WITH DM<sup>7,11-12</sup>

- **BP Goals (CKD + DM):**
  - SBP <130 using standardized office BP measurement
  - Balance risk for AKI and polypharmacy, especially if very low kidney function
  - Consider less intensive therapy if limited life expectancy or symptomatic postural hypotension
- **BP Treatment**
  - ACE-I or ARB 1st line if uACR >30, titrated to highest tolerated/approved dose
  - Thiazide, CCB, or ACE-I/ARB 1st line if uACR < 30
  - Avoid any combination of ACE-I, ARB, and DRI therapy
  - Diuretic usually required
  - Dietary sodium <2000 mg/day
- **DM Goals:**
  - Individualized A1C goal ranging from <6.5% to < 8%, depending on:
    - CKD severity, macrovascular complications, comorbidities, life expectancy, hypoglycemia awareness, and propensity for hypoglycemia
  - CGM time in range (TIR) > 70% (either 70-180 mg/dL or patient-specific range)
- **T2DM Treatment**
  - Prioritize SGLT-2i, metformin, and/or GLP-1 RA
- **Vaccination for influenza, pneumococcus and full COVID-19 series**
- **Nephrology Referral**
  - eGFR < 30 or uACR > 300
  - > 25% decrease in eGFR
  - Sustained decline in eGFR of more than 5 per year
  - 2° hyperparathyroidism
  - CKD and refractory HTN
  - Persistent unexplained hematuria
  - Persistent hyperkalemia/metabolic acidosis
  - Recurrent or extensive kidney stones
  - Hereditary or unknown cause of CKD

## DM, CKD AND CARDIOVASCULAR DISEASE<sup>11,13</sup>

- **CKD + DM = Increased CVD risk**
- **Consider SGLT-2i (independent of DM goal attainment) if eGFR within FDA prescribing guidelines, especially if uACR > 30 or concurrent HF**
- **Consider GLP-1RA if T2DM + ASCVD**
- **Consider statin-based therapy**
  - At least moderate intensity for all patients with DM and CKD
  - High intensity for patients with known ASCVD and some patients with DM, CKD, and multiple ASCVD risk factors
  - Additional lipid-lowering treatment may be warranted for higher risk individuals
- **Consider NS-MRA after max tolerated ACE-I/ARB if:**
  - T2DM, uACR >30, eGFR >25, AND K<5
- **Low-dose aspirin for secondary ASCVD prevention unless bleeding risk outweighs benefits**

**REFERENCES** 1) <https://www.ncqa.org/blog/kidneyhealth/>; 2) *Diabetes Care*. 2021;44(9):2025-2032. 3) *Lancet Diabetes Endocrinol*. 2015;3(7):514-525. 4) *Am J Kidney Dis*. 2014;63(5):713-735. 5) *Diabetes Care*. 2023;46(Suppl.1):S191-S202. 6) *PLoS One*. 2014;9(11):e110535. 7) *Am J Med*. 2016;129(2):153-162.e7. 8) *Kidney Med*. 2020;2(1):85-93. 9) *Kidney Med*. 2020;3(1):142-150. 10) *Am J Kidney Dis*. 2020;75(4 Suppl 2):S1-S164

**ABBREVIATIONS** ACE-I, angiotensin-converting-enzyme inhibitor; AKI, acute kidney injury; ARB, angiotensin receptor blocker; ASCVD, atherosclerotic cardiovascular disease; BP, blood pressure; CCB, calcium-channel blocker; CKD, chronic kidney disease; CGM, continuous glucose monitoring; COVID-19, coronavirus disease 2019; CVD, cardiovascular disease; DM, diabetes mellitus; DOAC, direct-acting oral anticoagulant; DRI, direct renin inhibitor; eGFR, estimated glomerular filtration rate; FDA, Food & Drug Administration; GLP-1 RA, glucagon-like peptide 1 receptor agonist; HEDIS, Healthcare Effectiveness Data and Information Set; HF, heart failure; HTN, hypertension; NS-MRA, non-steroidal mineralocorticoid receptor antagonist; NSAIDs, nonsteroidal anti-inflammatory drugs; PICC, peripherally inserted central catheter; PT/INR, prothrombin time/international normalized ratio; SBP, systolic blood pressure; SGLT-2i,