KIDNEY HEALTH EVALUATION FOR PATIENTS WITH DIABETES

(KED) HEDIS Measure[1]

NATIONAL KIDNEY FOUNDATION®

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 evidence of End Stage Renal Disease (ESRD) 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.[2]

MEASURE RELEVANCE

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

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

CKD is classified based on: -Cause (C) -GFR (G) -Albuminuria (A)			Albuminuria categories Description and range		
			A1	A2	A3
			Normal to mildly increased	Moderately increased	Severely increased
			<30 mg/g <3 mg/mmol	30-299 mg/g 3-29 mg/mmol	≥300 mg/g ≥30 mg/mmol
GFR categories (ml/min/1.73m^2) Description and range	G1	Normal or high	≥90	1 if CKD	Treat 1	Refer* 2
	G2	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+

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.[1]

CKD Stage 1 and Stage 2 require albuminuria or other markers of kidney damage for diagnosis.

Taken from 02-10-8241 BCAQ document created in 2020.

PATIENT SAFETY

- **eGFR < 60 = Patient Safety Risk**
  - Drug dosing consider eGFR
  - Reduce risk of AKI volume depletion
- **eGFR 45 to < 60**
  - Avoid prolonged NSAIDs
  - Continue metformin use
- **eGFR 30 to < 45**
  - Avoid prolonged NSAIDs
  - Use metformin with close monitoring at 50% dose
  - Iodinated contrast-induced AKI prevention; consider isotonic saline infusion before, during and after intra-arterial procedure
  - Dose adjust DOAC
  - Consider avoiding PICC lines; use single and double lumen central catheters instead
- **eGFR < 30**
  - Avoid any NSAIDs and metformin
  - SGLT-2i - Review FDA package insert for current guidance:
  - Iodinated contrast-induced AKI
  - prevention; consider isotonic saline infusion before, during and after intra-arterial procedure
  - Dose adjust DOAC or avoid depending on the agent
  - Gadolinium contrast risk of nephrogenic systemic fibrosis
    - Radiology and nephrology consider dose and macrocyclic agent
  - Avoid PICC lines, use single and double lumen central catheters instead
  - Monitor PT INR closely given increased risk of warfarin anticoagulation bleeding

PREVENTING CKD PROGRESSION

- **Consider BP goal < 130/80 for CVD risk reduction and if uACR >300**
  - ACE-I or ARB for HTN if uACR > 30
  - Avoid ACE-I and ARB combination in general.
  - Consider SGLT-2i for HTN if uACR > 300 mg/g
  - Diuretic usually required; chlorthalidone may be effective even at low eGFR
  - Dietary sodium < 2000 mg/day
- **DM—Target HbA1c ~7%**
- **T2DM - consider SGLT-2i and/ or GLP-1 RA**
- **Vaccination for influenza + pneumococcus and COVID-19**
- **Nephrology Referral**
  - eGFR < 30 or uACR > 300
  - 25% decrease in eGFR (AKI or progressive CKD may be difficult to distinguish)
  - Progression of CKD with sustained decline in eGFR of more than 5 per year
  - 2° hyperparathyroidism
  - Consistent finding of significant albuminuria
  - Persistent unexplained hematuria
  - Persistent hyperkalemia/ metabolic acidosis
  - Recurrent kidney stones
  - Hereditary or unknown cause of CKD

CKD AND CARDIOVASCULAR DISEASE

- **CKD = CVD risk**
- **Consider BP goal < 130/80 for CV risk reduction**
- **Type-2 DM considered SGLT-2I for heart failure and GLP-1 RA for atherosclerotic CVD**
- **Consider statin-based therapy**
  - All > 50 years
  - 18-50 years at high CVD risk
  - h/o CAD, DM, h/o ischemic CVA, 10 yr risk of MI >10%
- **ASA for secondary prevention unless bleeding risk outweighs benefits**

Abbreviation

ACE-I, angiotensin-converting-enzyme inhibitor; **AKI**, acute kidney injury; **ARB**, angiotensin receptor blocker; **ASA**, acetylsalicylic acid (aspirin); **BP**, blood pressure; **CAD**, coronary artery disease; **CKD**, chronic kidney disease; **CVA**, cerebrovascular accident; **CVD**, cardiovascular disease; **DM**, diabetes mellitus; **DOAC**, Direct Oral Anticoagulant; **eGFR**, estimated glomerular filtration rate; **GLP1-RA**, glucagon-like peptide 1 receptor agonists Hb, hemoglobin; **HTN**, hypertension; **MI,** myocardial infarction; **NSAIDs**, nonsteroidal anti-inflammatory drugs; **PICC**, peripherally inserted central catheter line; **PT INR**, prothrombin time, international normalized ratio; **SGLT-2I**, sodium-glucose cotransporter-2 inhibitors; **uACR** urine albumin-creatinine ratio. **HEDIS** (Healthcare Effectiveness Data and Information Set)

References

1.Vssalotti JA, Centor R, Turner BJ, Greer RC, Choi M, Sequist TD. Practical Approach to Detection and Management of Chronic Kidney Disease for the Primary Care Clinician. The American Journal of Medicine 2016;129:153-62.e7.

2. Choosing Wisely Recommendation for Chornic Kidney Disease Testing. 2018. at bit.ly/2SFSz3u

3. Inker LA, Astor BC, Fox CH, et al. KDOQI US commentary on the 2012 KDIGO clinical practice guideline for the evaluation and management of CKD. Am J Kidney Dis 2014;63:713-35.

4. Pharmacologic Approaches to Glycemic Treatment: Standards of Medical Care in Diabetes—2020. Diabetes Care 2020;43:S98-S110.

5. Go AS, Chertow GM, Fan D, McCulloch CE, Hsu C-y. Chronic Kidney Disease and the Risks of Death, Cardiovascular Events, and Hospitalization. New England Journal of Medicine 2004;351:1296-305.

6. Matsushita, K., et al., Estimated glomerular filtration rate and albuminuria for prediction of cardiovascular outcomes:a collaborative meta-analysis of individual participant data. The Lancet Diabetes & Endocrinology. 3(7): p. 514-525.

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