

# Quality Improvement

## Early Detection of Chronic Kidney Disease

Diabetes and hypertension are the leading causes of Chronic Kidney Disease (CKD). Other risk factors include obesity, family history of CKD, history of acute kidney injury, patients over the age of 60 and being a member of a minority race or ethnicity.

- Because CKD is often asymptomatic, many patients are unaware they have the disease until it has progressed to later stages.
- Early identification of CKD in your at-risk patients creates the opportunity to slow or prevent the progression of this disease and can result in decreased hospitalizations and costs.
- Understanding who has CKD allows you to provide education, develop treatment plans and goals or refer outside your practice as needed to help facilitate better outcomes for these patients.

The American Diabetes Association and the National Kidney Foundation recommend annual screening for patients with diabetes using both the eGFR and uACR lab tests. (Patients with diabetes can have changes in either their eGFR, uACR or both, so it is important to track both tests). Together the two tests, also known as the Kidney Profile, provide key information about kidney health, including determining CKD stage and risk of progression.

**eGFR-Estimated Glomerular Filtration rate** measures kidney function through filtration rate and is determined via a blood test with a mathematically derived result based on a patient's serum creatinine level, age, sex and race.

- Creatinine Blood -CPT Code 82565, or
- Any of the Blood Panels which contain this test; 80047, 80048, 80050, 80053, 80069

**uACR-Urine Albumin Creatinine Ratio** measures kidney damage through albuminuria levels found in the urine, however, there is not one CPT code for this measurement it is a combination of 2 separate tests.

- Quantitative Urine Albumin Test – CPT Code 82043, and
- Urine Creatinine Test – CPT Code 82570

KDIGO's *Kidney Disease: Improving Global Outcomes* "Heat Map" is a great tool that might be used for staging, risk stratifying and monitoring kidney disease based on the Kidney Profile test results. <https://kdigo.org/guidelines>

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 <sup>2</sup> ) Description and range	G1	Normal or high	≥90	Screen 1	Treat 1	Treat and refer 3
	G2	Mildly decreased	60-89	Screen 1	Treat 1	Treat and refer 3
	G3a	Mildly to moderately decreased	45-59	Treat 1	Treat 2	Treat and refer 3
	G3b	Mildly to severely decreased	30-44	Treat 2	Treat and refer 3	Treat and refer 3
	G4	Severely decreased	15-29	Treat and refer* 3	Treat and refer* 3	Treat and refer 4+
	G5	Kidney failure	<15	Treat and refer 4+	Treat and refer 4+	Treat and refer 4+

■ Low risk (if no other markers of kidney disease, no CKD)  
■ Moderately increased risk

■ High Risk  
■ Very high risk

# CKD Prevention: Key Components to Success

**Educate your staff** on the importance of working together to identify and manage patients with CKD. Consider Pre-visit planning, Pre-defined protocols, use your EHR to identify patient-specific education, promote Patient Portal use if available, send reminders to patients for preventative and follow up care. The National Kidney Foundation's Change Package contains lots of great tools and strategies for quality improvement. <https://www.kidney.org/contents/chronic-kidney-disease-change-package>

**Use data** to identify patients at highest risk. Build or request custom reports from your EHR to identify patients with abnormal test results (with or without documented CKD diagnosis) to review care plans or update problem lists as determined by those test results. Identify upcoming appointments for pre-planning or missed appointments for follow up.

<https://www.kidney.org/sites/default/files/CKDintercept-Practice-Assessment.pdf>

**Tailor your interventions and treatment to CKD stage** and risk of progression. Be sure to classify CKD patients with the appropriate stage of disease to prompt appropriate protocols and/or referrals for further treatment as needed.

[https://www.kidney.org/sites/default/files/02-10-6800\\_ABG\\_PCPI\\_Algorithm2.pdf](https://www.kidney.org/sites/default/files/02-10-6800_ABG_PCPI_Algorithm2.pdf)

Provide services based on **clinical guidelines and best practice**. Testing patients at risk for diabetes and/or hypertension, detecting and diagnosing CKD and implementing individualized care plans based on risk stratification by estimated GFR (eGFR) and urine albumin-to-creatinine ratio (uACR).

**Educate and engage your patients** to play an active role in their care. Use shared decision-making tools to incorporate patient and caregiver values and goals. Examples of some tracking tools are available at: [https://www.nia.nih.gov/sites/default/files/goal\\_setting\\_worksheet-fillable.pdf](https://www.nia.nih.gov/sites/default/files/goal_setting_worksheet-fillable.pdf) and <https://www.nia.nih.gov/health/exercise-and-physical-activity-tracking-tools>. TALK to your patients about their results. The National Kidney Foundation's Heat Map card may be helpful for this purpose. [https://www.kidney.org/sites/default/files/heat\\_map\\_card.pdf](https://www.kidney.org/sites/default/files/heat_map_card.pdf).

**Coordinate care across teams and settings**. Assess patients for additional care needs and refer them to appropriate specialists and support services (e.g., dietitians, diabetes educators, social workers, cardiologists).

**Measure outcomes** to determine performance over time, evaluate improvement and take action as indicated by that performance. NCQA's HEDIS measure set includes two measures related to CKD which are relevant measurements you could track; *Kidney Health Evaluation for Patients with Diabetes* which aligns with clinical guidelines for CKD testing among adults with diabetes.

*Potentially Harmful Drug-Disease Interactions in Older Adults* assesses whether patients with CKD are prescribed Cox-2 selective non-steroidal anti-inflammatory drugs (NSAID) or non-aspirin NSAIDs, which are not recommended.

[https://www.ncqa.org/blog/kidneyhealth/#:~:text=The%20new%20measure%20tracks%20the,%2Dcreatinine%20ratio%20\(uACR\)](https://www.ncqa.org/blog/kidneyhealth/#:~:text=The%20new%20measure%20tracks%20the,%2Dcreatinine%20ratio%20(uACR))

**Ask for patient and clinician feedback** and be willing to adjust workflows, programs and procedures based on that feedback.