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CHRONIC KIDNEY DISEASE

eGFR is considered the best screening tool for Chronic Kidney Disease (CKD)

[eGFR Calculator](#)

Treatment of early stages of CKD is generally targeted to comorbid medical conditions, such as diabetes, hypertension, and cardiovascular disease, to reduce the risk for complications and progression of CKD.

The National Kidney Foundation recommends assessing risk for CKD in all patients and doing the following for those at increased risk: measure blood pressure, test serum creatinine levels, test urine albumin levels, and examine urine for erythrocytes and leukocytes¹

CKD CRITERIA:

Any of the following must be present for 3 months or more

- Urinary albumin to creatinine ratio > 30 mg/g
- Markers of kidney damage (like radiologic abnormalities)
- GFR < 60 mL/min/1.73m²

CKD RISK FACTORS:

Modifiable:

- Diabetes, Hypertension, history of AKI, frequent analgesic use

Non-modifiable:

- Family history of kidney disease, diabetes, or hypertension, age 60 or older, race/ethnic minority status

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/1.73 m ²) Description and range	G1	Normal or high	≥90	1 if CKD	Monitor 1	Refer* 2
	G2	Mildly decreased	60-89	1 if CKD	Monitor 1	Refer* 2
	G3a	Mildly to moderately decreased	45-59	Monitor 1	Monitor 2	Refer 3
	G3b	Moderately to severely decreased	30-44	Monitor 2	Monitor 3	Refer 3
	G4	Severely decreased	15-29	Refer* 3	Refer* 3	Refer 4+
	G5	Kidney failure	<15	Refer 4+	Refer 4+	Refer 4+

**Numbers reflect the number of times a year a patient should be monitored

WHEN TO REFER:

1. Acute kidney injury or abrupt sustained fall in GFR
2. GFR < 30 mL/min/1.73m² or GFR categories G4 - G5
3. Persistent albuminuria measured by Albumin: Creatinine Ratio (ACR > 300 mg/g)
4. Atypical progression of CKD (sustained decline of GFR by more than 5 mL/min/1.73m²/year)
5. Urinary red cell casts, RBC more than 20 per HPF sustained and not readily explained
6. Hypertension refractory to treatment with 3 or more anti-hypertensive agents
7. Persistent abnormalities of serum potassium
8. Recurrent or extensive nephrolithiasis
9. Hereditary kidney disease

¹ National Kidney Foundation. KDOQI Clinical Practice Guidelines for Chronic Kidney Disease: Evaluation, Classification, and Stratification. New York: National Kidney Foundation; 2002.

Thank you, **Dr. Stephen Clyne** for the content of this Clinical Corner. He may be reached at:

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