

# Chronic Kidney Disease

Reference  
Link












## SCREENING and STAGING

### SCREEN patients at risk for CKD annually

- **Basic metabolic panel (BMP)** for serum creatinine and eGFR
- **Urine Sample** for albumin-creatinine ratio



### ASSESS need for testing & nephrology consult/referral\*

RISK LEVEL				Persistent albuminuria categories		
				A1	A2	A3
	Extremely High Risk (test 4 × /yr)			Normal to mildly increased	Moderately increased	Severely increased
	Very High Risk (test 3 × /yr)			< 30 mcg/mg < 3 mg/mmol	30–300 mcg/mg 3–30 mg/mmol	> 300 mcg/mg > 30 mg/mmol
	High Risk (test 2 × /yr)					
	Moderately Increased Risk (test 1 × /yr)					
	Low or No Risk (test 1 × /yr IF CKD)					
eGFR categories (mL/min/1.73 m <sup>2</sup> )	G1	Normal or high	> 90		<b>Monitor</b>	<b>Refer<sup>1</sup></b>
	G2	Mildly decreased	60–89		<b>Monitor</b>	<b>Refer<sup>1</sup></b>
	G3a	Mildly to moderately decreased	45–59		<b>Monitor</b>	<b>Refer</b>
	G3b	Moderately to severely decreased	30–44		<b>Monitor/Refer<sup>1</sup></b>	<b>Refer</b>
	G4	Severely decreased	15–29		<b>Refer</b>	<b>Refer</b>
	G5	Kidney failure	< 15		<b>Refer</b>	<b>Refer</b>

\* Consider referral to nephrology service depending on local arrangements regarding monitoring or referring.

\*Adapted from recommendations for eGFR and albuminuria testing as well as monitoring and referral. Used with permission from Macmillan Publishers Ltd: Official *Journal of the International Society of Nephrology* (Kidney Disease: Improving Global Outcomes (KDIGO) CKD Work Group. KDIGO 2012 Clinical Practice Guideline for the Evaluation and Management of Chronic Kidney Disease. *Kidney inter., Suppl.* 2013; 3: 1-150), copyright 2013.

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## TREATMENT

RISK LEVEL	CKD MANAGEMENT FOCUS
<b>Green</b>	PCP — <u>Educate and vaccinate</u>
<b>Yellow</b>          <b>ADD TO ABOVE</b>	PCP — <b>Manage major risk factors:</b> <ul style="list-style-type: none"> <li>• <u>Albuminuria (ACR)</u>: ACEI/ARB or equivalent</li> <li>• <u>High BP</u>: ACEI/ARB or equivalent</li> <li>• <u>Dyslipidemia</u>: Statins; lifestyle weight management/ therapeutic lifestyle changes</li> <li>• <u>Diabetes</u>: Appropriate treatments</li> </ul> <b>Protect kidneys and veins:</b> <ul style="list-style-type: none"> <li>• Avoid/limit nephrotoxins, especially NSAIDs</li> <li>• <u>Preserve venous access</u>; phlebotomy and IV in dominant arm</li> <li>• <u>Manage diet and supplements</u> (especially protein, sodium, potassium, phosphorus, calcium)</li> </ul>
<b>Orange</b> <b>ADD TO ABOVE</b>	PCP — <b>Increase monitoring to twice a year; consider nephrology consult</b>
<b>Red</b>          <b>ADD TO ABOVE</b>	<b>PCP &amp; Nephrologist Comanagement —</b> <b>Consult with nephrologist regularly.</b> <b>Increase monitoring; treat aggressively.</b> <b>Monitor and manage these comorbidities:</b> <ul style="list-style-type: none"> <li>• <u>Metabolic acidosis</u>: Sodium bicarbonate</li> <li>• <u>Anemia</u>: Oral iron; IV as a “fall back”; avoid ESAs if possible</li> <li>• <u>Volume overload/edema</u>: Adjust meds, reduce sodium; diuretics</li> <li>• <u>Metabolic bone disease</u>: Limit phosphorus; regulate calcium and vitamin D</li> </ul> <u>Educate patient for renal replacement therapy decisions (including preparing for dialysis)</u>