

311 Chronic Kidney Disease

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Chronic kidney disease (CKD) encompasses a spectrum of pathophysiologic processes associated with abnormal kidney function, often with a progressive decline in glomerular filtration rate (GFR). The risk of worsening CKD is closely linked to both the GFR and the amount of albuminuria. **Figure 311-1** provides a staging of CKD stratified by the estimates for further progressive decline of GFR based on these two parameters.

Prognosis of CKD by GFR and albuminuria categories: KDIGO 2012				Persistent albuminuria categories description and range		
				A1	A2	A3
				Normal to mildly increased	Moderately increased	Severely increased
				<30 mg/g <3 mg/mmol	30–300 mg/g 3–30 mg/mmol	>300 mg/g >30 mg/mmol
GFR categories (mL/min/1.73 m ²) description and range	G1	Normal or high	≥90			
	G2	Mildly decreased	60–89			
	G3a	Mildly to moderately decreased	45–59			
	G3b	Moderately to severely decreased	30–44			
	G4	Severely decreased	15–29			
	G5	Kidney failure	<15			

FIGURE 311-1 Kidney Disease Improving Global Outcome (KDIGO) classification of chronic kidney disease (CKD). Gradation of color from green to red corresponds to increasing risk and progression of CKD. GFR, glomerular filtration rate. *(Reproduced with permission from KDIGO 2012 Clinical Practice*