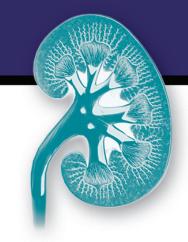
CHRONIC KIDNEY DISEASE: IDENTIFICATION AND ACTION PLAN





Improving Management & Care of Advanced Chronic Kidney Disease Patients

CHRONIC KIDNEY DISEASE: IDENTIFICATION AND ACTION PLAN				
Stage	Description	GFR (mL/min)*	Action	Management Responsibility
Increased risk for CKD		90	Screen for CKD risk factors [†]	
1	Kidney damage [‡] with normal or increased GFR	90	 Diagnose cause of CKD & treat Screen and treat progression risk factors§ Treat comorbid conditions Screen and treat cardiovascular risk factors 	Many can be managed primarily by PCP; nephrology consult helpful for diagnosis of cause of CKD and treatment plan Consider periodic consultation or co-management with nephrologist, especially in patients with complications or progression
2	Kidney damage with mildly decreased GFR	60–89	Adjust medication dosesMinimum yearly assess rate of GFR decline	
3	Moderately decreased GFR	30–59	 Minimum bi-yearly GFR assessment Screen for complications# every 3 months and treat if present 	
4	Severely decreased GFR	15–29	 Refer for preparation for renal replacement therapy See RPA Guidelines at www.renalmd.org 	Regular follow-up by nephrologist recommended
5	Kidney failure	<15	Begin replacement if uremic	

Adapted from Am J Kidney Dis, V39 (2 supp 1), National Kidney Foundation, K/DOQI Clinical Practice Guidelines for Chronic Kidney Disease: Evaluation, Classification and Stratification, S17-S31, ©2002, with permission from National Kidney Foundation.

CKD DEFINITION

The persistent (≥ 3 months) and usually progressive reduction in glomerular filtration rate (GFR less than 60 mL/min/1.73 m²), and/or albuminuria (more than 30mg of urinary albumin per gram of urinary creatinine) or other indicator of kidney damage.

*INDICATORS OF KIDNEY DAMAGE †CKD RISK FACTORS Hypertension Cardiovascular disease Proteinuria **Diabetes** History of acute renal failure Hematuria Age >60 Autoimmune disease Other urine sediment abnormalities Family history of CKD Structural (imaging) abnormalities Urologic disorders Nephrotoxic drug exposure GFR < 60^{††} Systemic infection including NSAIDs Ethnic minority Other abnormal blood tests^{‡‡} ††GFR is preferred over creatinine alone for assessing kidney function **See "Potential Complications"

*POTENTIAL COMPLICATIONS **PROGRESSION RISK FACTORS** Hypocalcemia - Ca <8.5 mg/dL Hyperphosphatemia CKD Risk Factors§§ Anemia - Hb <12 g/dL Renal allograft Anemia Atherosclerosis Hyperphosphatemia – PO₄ >4.5 mg/dL Obesity Malnutrition – albumin <4 g/dL Proteinuria Congenital renal disease Decreased kidney mass Metabolic bone disease Hyperlipidemia Type and extent of kidney Neuropathy Renal calculi disease-GN, vasculitis, etc. Functional status/QOL decline Pro-coagulants Hypokalemia Tobacco use Hypertension – BP >130/80 mmHg Excess angiotensin activity Renal cystic disease Metabolic acidosis – HCO₃ <22 mmol/L Male gender Hyperparathyroidism Cardiovascular disease §§See "CKD Risk Factors"



^{*}GFR is preferred over creatinine alone for assessing kidney function.