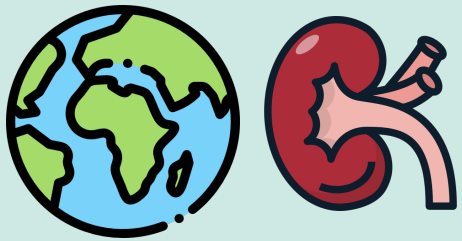
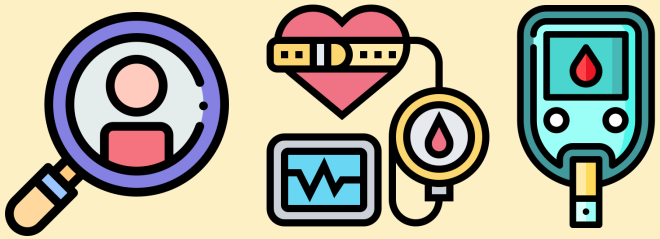
Chronic Kidney Disease (CKD) Early Identification and Intervention

CKD causes a global burden



CKD disproportionately affects socially disadvantaged populations

Determine At-Risk Individuals and Populations



Screen for CKD in individuals with hypertension, diabetes, and/or cardiovascular disease

Consider other factors including

Demographics, older age, race/ ethnicity
Other systemic diseases that impact kidneys
Genetic risk factors
Environmental exposures

Screening and Diagnosis of CKD

Measure kidney function

Serum creatinine
Serum Cystatin C if available for more accurate staging

Measure kidney injury

Urine albumin-to-creatinine ratio (UACR)
Urine dipstick if UACR not available

This ISN-KDIGO CKD Early Identification & Intervention Toolkit Initiative is supported by an unrestricted educational grant from AstraZeneca.

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Risk stratify for appropriate staging

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 m²) 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			

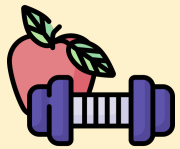
Green, low risk (if no other markers of kidney disease, no CKD); yellow, moderately increased risk; orange, high risk; red, very high risk.

Use the KDIGO "heat map" to stage CKD based on estimated glomerular filtration rate (eGFR) and UACR

Individualized Re-screening

Based on individualized risk of progression

Risk reduction for CKD & CVD progression and complications



- Lifestyle modification (e.g., physical activity; lower sodium intake)
- Smoking cessation
- Optimize blood pressure control
- Optimize glycemic control
- SGLT2 inhibitors in diabetic kidney disease
- RAAS inhibition
- Statins
- Treat metabolic acidosis
- Treat underlying cause of CKD
- Avoid nephrotoxins (e.g., NSAIDs)
- Adjust dosing of medications based on eGFR

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