CLINICAL PRACTICE GUIDELINE FOR THE SCREENING FOR, DIAGNOSIS AND MANAGEMENT OF THE CHRONIC KIDNEY DISEASE STAGES 1 TO 3

- **Title:** Clinical practice guideline for the screening for, diagnosis and management of the chronic kidney disease stages 1 to 3.
- **Author:** Peru. EsSalud Social Security. Health Technology Assessment and Research Institute (IETSI in Spanish)
- **Publication date:** *May/2020*
- **Publishing house:** EsSalud Social Security. "Health Technology Assessment and Research Institute (IETSI in Spanish)
- **Abstract:** This paper abstracts the Clinical Practice guideline (CPG) for the screening for, diagnosis and management of the chronic kidney disease (CKD) stages 1 to 3 in Peruvian Social Security (EsSalud). To perform this CPG, a guideline task force (GTF) was formed with specialized physicians and methodologists, the group proposed eight clinical questions. To answer each question, systematic searches of preview reviews were performed and when it was necessary, primary studies were reviewed, and the relevant evidence was selected. Certainty of evidence was evaluated using Grading of Recommendations Assessment, Development, and Evaluation (GRADE) methodology. In periodical work sessions, the group used GRADE methodology for reviewing the evidence and formulating recommendations. Eight recommendations (four strong and four conditional), 29 good clinical practice items and 3 flowcharts were formulated
- **Key words:** Chronic Renal Insufficiency; Practice Guideline; GRADE Approach; Evidence-Based Medicine.
- **PICO questions for CPG:**

SCREENING, DIAGNOSIS AND STAGING			
Question 1: In adults, should the screening for chronic kidney disease be performed in primary care?			
POPULATION	**INTERVENTION**	**COMPARATOR**	**OUTCOME(S)**
Adults in primary care consultation	Screening	No screening	• Development of chronic kidney disease
Question 2: In adults, which equation should be used to calculate estimated glomerular filtration rate: Chronic Kidney Disease Epidemiology Collaboration (CKD-EPI) equation or Modification of Diet in Renal Disease study equation with Isotope-Dilution Mass Spectrometry (MDRD4)?			
POPULATION	**DIAGNOSTIC TESTS**	**GOLD STANDARD**	**OUTCOME(S)**
Adults with or without risk factors for CKD	CKD-EPI creatinine / CKD-EPI cistatin-c / CKD-EPI creatinine + cistatin-c / MDRD6	Glomerular filtration rate measured using exogenous markers	• Sensibility • Specificity • Bias • Accuracy (P30)

	/MDRD4/ MDRD4-IDMS		

Question 3: In adults, which method should be used to detect of albuminuria: En adultos, ¿qué método se debería utilizar para la detección de albuminuria: albuminuria/creatinuria ratio (ACR), proteinuria/creatinuria ratio (PCR) or urine test strips?

POPULATION	DIAGNOSTIC TESTS	GOLD STANDARD	OUTCOME(S)
Adults with or without risk factors for CKD	Albuminuria/creatinuria ratio / urine test strips / Albuminuria assessed from 24-hour urine collection	Albuminuria assessed from 24-hour urine collection / ACR	• Sensibility • Specificity • ROC curve

NON-PHARMACOLOGICAL MANAGEMENT			
Question 4: In adults with chronic kidney disease (CKD) stages 1 to 3, which type of diet should be provided: low-protein, very-low-protein or normo-protein diet?			
POPULATION	**INTERVENTION**	**COMPARATOR**	**OUTCOME(S)**
Adult patients with chronic kidney disease without diabetes	Normoprotein diet	Low-protein diet	• Mortality • Disease-free survival • Quality of life • Central nervous system (CNS) involvement
	Normoprotein diet	Very-low-protein diet	
Adult patients with chronic kidney disease with diabetes	Normoprotein diet	Low-protein diet	• Change of glomerular filtration rate

PHARMACOLOGICAL MANAGEMENT			
Question 5: In adults with chronic kidney disease (CKD) stages 1 to 3 and hypertension, should angiotensin converting enzyme (ACE) inhibitors or angiotensin II receptor antagonists (ARBs) be provided to prevent the progression of chronic kidney disease?			
POPULATION	**INTERVENTION**	**COMPARATOR**	**OUTCOME(S)**
Adult patients with chronic kidney disease (CKD) stages 1 to 3	angiotensin converting enzyme (ACE) inhibitors or angiotensin II receptor antagonists (ARBs)	Placebo	• Proteinuria • Decrease of eGFR • Progressionn of CKD • Doubling of serum creatinine
Question 6: In adults with chronic kidney disease (CKD) stages 1 to 3 and dyslipidemia, should statins be provided to prevent the progression of chronic kidney disease?			

POPULATION	INTERVENTION	COMPARATOR	OUTCOME(S)
Adult patients with chronic kidney disease (CKD) stages 1 to 3	Statins	Placebo	• Proteinuria • Decrease of eGFR • Progressionn of CKD • Doubling of serum creatinine

MONITORING		
Question 7: In adults with chronic kidney disease (CKD) stages 1 to 3, what should be the frequency of monitoring the estimated glomerular filtration rate (eGFR) and albuminuria to assess the progression and stage of chronic kidney disease?		
POPULATION	**INTERVENTION / COMPARATOR**	**OUTCOME(S)**
Adult patients with chronic kidney disease (CKD) stages 1 to 3	Monitoring times of renal function parameters: glomerural filtration rate and albuminuria T	• Disease progression • All-cause mortality • Mortality due to cardiovascular cause

REFERRAL CRITERIA		
Question 8: In adults with chronic kidney disease (CKD) stages 1 to 3, what are the referral criteria to nephrologist?		
POPULATION	**INTERVENTION / COMPARATOR**	**OUTCOME(S)**
Adult patients with chronic kidney disease (CKD)	Referral criteria to nephrologist	• Progression of chronic kidney disease • Hospitalization • Quality of life