INDIAN HEALTH SERVICE
National Pharmacy and Therapeutics Committee
Formulary Brief: ***CKD Guidelines Review***
-February 2026-

Background:

The Indian Health Service (IHS) National Pharmacy and Therapeutics Committee (NPTC) provided a review of Screening, Diagnosis and Treatment Guidelines for Chronic Kidney Disease (CKD). CKD and its risk factors are prevalent among American Indians/Alaska Natives (AI/AN).[1] This topic was reviewed preceding drug class reviews during the same meeting. The IHS Division of Diabetes Treatment and Prevention has several useful resources for CKD in Type II diabetes mellitus (DM) including a quick reference sheet that can be found here. Following clinical review and analysis, the NPTC voted to **ADD sodium zirconium cyclosilicate** to the National Core Formulary.

Discussion:

In order to provide a background and understanding of the current gold standard of screening, treatment, and diagnosis of CKD, the following guidelines were reviewed: Kidney Disease Improving Global Outcomes (KDIGO, published April 2024), National Institutes for Health and Care Excellence (NICE, United Kingdom (UK) National Health Service Guidelines, published August 2021), UK Kidney Association (published 2023), U.S. Department of Veterans Affairs and Department of Defense Guidelines (published 2025), Kidney Health Australia (published 2021). This brief review is not meant to replace or cover all detailed guidelines for CKD. For this, please refer to individual resources.

Screening Guidelines: An understanding of the definition and components of CKD is essential for screening and prevention. CKD is defined as changes or abnormalities in kidney structure or function for greater than 3 months with "implications for health". There are three components influencing the diagnosis of CKD: cause, glomerular filtration rate (eGFR) and albumin to creatinine ratio (ACR). CKD is often asymptomatic; thus, patients must be screened when they have high risk comorbidities. Common risk factors include hypertension, diabetes, cardiovascular disease (including heart failure) and prior episodes of acute kidney injury (AKI). These people should be screened as frequently as once per year depending on severity of disease. Other notable comorbidities whose presence should trigger screening: any structural urinary tract disease, recurrent kidney stones, systemic lupus erythematosus (SLE), vasculitis, HIV, occupational exposures to nephrotoxic agents, pre-term birth, pre-eclampsia/eclampsia, and family history of kidney failure (cause known or not). Use of creatinine to calculate eGFR is appropriate in most situations, however use of cystatin-C to calculate eGFR may be appropriate in liver disease, high or low muscle mass, or when creatinine-based GFR is inconsistent with the clinical picture.

Diagnosis Guidelines: Diagnosis of CKD depends on determining the grade of CKD utilizing the GFR stage and ACR stage. The cause of CKD will determine approach to treatment and frequency of testing.

Treatment Guidelines: Treatment of CKD is a wide spectrum that encompasses treatment of reversible causes of CKD, preventing/slowing disease progression, treatment of complications, medication titrations, and deciding when a patient needs renal replacement therapy (RRT).

Recommended **lifestyle interventions** include 150 minutes per week of moderate intensity physical activity, a protein intake of 0.8g/kg daily and a less than 2-gram sodium diet[3].

Angiotensin converting enzyme inhibitor (ACE) or angiotensin-renin blocker (ARB) (known as RASi drugs) are first line for any patient with albuminuria and CKD and recommended as first line for **blood pressure control (goal SBP <120mm/Hg)** regardless of DM status. Importantly, KDIGO guidelines emphasize the following practice points:

- use of highest tolerated therapeutic RASi dose,
- management of hyperkalemia with other mitigation strategies BEFORE lowering RASi dose,
- do not discontinue RASi unless serum creatinine rises by >30% within 4 weeks of initiation or dose change,
- consider reducing the dose or discontinuing ACE/ARB for: symptomatic hypotension, uncontrolled hyperkalemia despite medical treatment, or to reduce uremic symptoms while treating kidney failure,
- continue ACE/ARB even when the eGFR falls below 30 ml/min/1.73m^2

Hyperkalemia in CKD increases risk of death, cardiovascular disease, and hospitalization and is a complication that is made more likely with the use of ACE/ARBs. Management of hyperkalemia is recommended over dose-reduction in treatment with ACE/ARB in the most recent KDIGO guidelines.

Addition of sodium glucose transport-2 inhibitors (SGLT2i) are recommended as next line therapy for patients with CKD whose ACR is not normalized by RASi alone and this is recommended to continue through initiation of RRT. The UK guidelines suggest that SGLT2i should be initiated in any patient with CKD even if eGFR <20 mL/min/1.73m^2 [4].

Use of glucagon-like peptide-1 receptor agonist has strong evidence and is recommended to reduce progression of CKD in patients with type II DM and ASCVD.

Non-steroidal mineralocorticoids (finerenone is the only agent available in the U.S.) are recommended 3rd line if patients cannot tolerate or are not controlled by RASi and SGLT2i.

In patients with concomitant DM, target a goal glycated hemoglobin of 6.0-8.5%. Similarly, patients with ASCVD should be treated with statin therapy as CKD is an independent risk factor for cardiac events.

All patients with CKD should be screened for hepatitis C virus (HCV) infection as a cause of the disease itself. People with CKD may be treated with any of the medications for HCV infection on the IHS National Core Formulary.

While anemia is common in patients with CKD, any anemia diagnosis should be evaluated for other causes before determining it is solely due to CKD, reversible causes should be treated. In iron deficiency anemia, oral or intravenous (IV) iron may be used, however IV iron may be preferred in patients with CKD stage G5HD. For CKD-related anemia, erythropoiesis-stimulating agents and recommended over hypoxia-inducible factor-prolyl hydroxylase inhibitors agents.

Bone and mineral disease is also common in patients with CKD. Key recommendations include checking calcium, vitamin D and PTH levels at regular intervals, although no optimal PTH level is specified. Osteopenia and osteoporosis recommendations are “treatment as for the general population”, noting that bisphosphonates which are first line for treatment of osteoporosis may not be used in patients with eGFR <30ml/min/1.73 m^2.

Findings:

CKD is common among AI/AN patients and many of the agents on the IHS National Core Formulary are first line treatment for prevention of progression and treatment of CKD. Sodium zirconium cyclosilicate was added at this meeting to the IHS National Core Formulary to address the recommendation in guidelines to first treat hyperkalemia with medication BEFORE reducing RASi doses to prevent progression of CKD. Sodium zirconium cyclosilicate is FDA approved for treatment of both acute and chronic hyperkalemia and does not carry the same black box warning as sodium polystyrene sulfonate. Please consider referencing detailed guidelines for CKD when treating patients with this disease.

If you have any questions regarding this document, please contact the NPTC at IHSNPTC1@ihs.gov . For more information about the NPTC, please visit the NPTC website.

References:

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