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## **Blood Pressure Control and Cardiovascular Complication Management in CKD Patients: Balancing Risks and Benefits**

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Chronic kidney disease (CKD) presents a multifaceted challenge in clinical management, particularly concerning cardiovascular complications. Hypertension, a common comorbidity in CKD, significantly contributes to the heightened risk of cardiovascular events in affected individuals. Blood pressure (BP) control emerges as a cornerstone in mitigating these risks, as it can reduce the incidence of cardiovascular morbidity, mortality, and slow the progression of kidney disease. Recently, the Kidney Disease: Improving Global Outcomes (KDIGO) guidelines have recommended the adoption of more intensive BP control, with a target systolic BP (SBP) of <120 mmHg. This recommendation stems from evidence suggesting that the cardiovascular benefits achieved may outweigh the risks of kidney injury associated with lower BP targets. However, it is essential to recognize that excessively low BP levels may paradoxically worsen renal function and cardiovascular outcomes, necessitating a nuanced approach to treatment. In this lecture, we aim to delve into the existing literature surrounding optimal BP control using medications for CKD. Key topics covered will include the prevalence and impact of hypertension in CKD, the pathophysiological links between CKD and cardiovascular disease, guidelines for BP targets in CKD patients, pharmacological approaches to BP control, non-pharmacological interventions, management of cardiovascular complications, and the importance of individualized treatment strategies tailored to the unique needs of CKD patients. By synthesizing current evidence and guidelines, this lecture seeks to provide clinicians with practical insights into navigating the complexities of BP management in CKD, ultimately striving to optimize cardiovascular outcomes while safeguarding renal function.

**Keywords:** chronic kidney disease, blood pressure control, cardiovascular complications, end-stage-kidney-disease