

## Diabetic kidney disease: Where are we and what does the future hold

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### Abstract

Diabetic kidney disease (DKD) is a global public health problem. Diabetes remains the leading cause of end-stage kidney disease (ESKD) in the Western Hemisphere<sup>2</sup> and its incidence and prevalence are expected to double in the upcoming decade. Over the past three decades, there have been tremendous advances in the management of DKD, beginning with angiotensin-converting enzyme inhibitors (ACEi)/angiotensin receptor blockers (ARBs), and culminating thus far, with sodium-glucose cotransporter-2 (SGLT2) inhibitors and more recently non-steroidal mineralocorticoid receptor antagonists (NS-MRAs). Better standards of care and the combinations of some of these classes of drugs have resulted in an 85% slowing of DKD progression compared to 1980. Use of SGLT2 inhibitors combined with background renin-angiotensin system (RAS) blockade, slow CKD progression by an additional 58% when compared to RAS blockade alone. SGLT2 inhibitors simultaneously and more importantly reduced cardiovascular outcomes, especially heart failure. MRAs have a proven track record in reducing albuminuria, combatting resistant hypertension, and lowering heart failure rates in DKD. Hyperkalemia has been the main factor limiting their broad utilization. Finerenone, a NS-MRA has demonstrated a reduction in DKD progression and reduction in CV mortality associated with heart failure on background max RAS blockade. There are ongoing trials with GLP-1 RA to also see if they slow DKD progression. In short, under ideal conditions we should have 3 new additional classes of agents by 2024 to slow DKD progression.

### Biography

George Bakris is a Professor of Medicine and Director of the Am. Heart Assoc. Comprehensive Hypertension Center at the University of Chicago Medicine. He has published over 800 peer-reviewed articles and book chapters in diabetic kidney disease/hypertension. He is the Editor or Co-Editor of 23 books in the areas of Diabetic Kidney Disease and Hypertension. He served on many national guideline committees, including The JNC 7, the American Diabetes Association (ADA) Clinical Practice Guideline Committee, and the National Kidney Foundation (K-DOQI), Blood Pressure and Diabetes Guideline committees. He Chaired the ADA Blood Pressure Consensus Report (2016) and served on the ACC/AHA writing committee on the Resistant Hypertension Consensus report (2016-2017). He was past-president of the American College of Clinical Pharmacology and American Society of Hypertension (ASH). He is the recipient of the Irvine Page-Alva Bradley Lifetime Achievement Award-Am. Heart Assoc. BP Council (2019) and National Kidney Foundation Lifetime Service Award.



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