

How Might Current Data Inform the Primary Care Physician's and the Multidisciplinary Team's Management of Cardiorenal Risk in Patients with Chronic Kidney Disease and Type 2 Diabetes?

Reference	Link
House AA. Management of heart failure in advancing ckd: core curriculum 2018. <i>Am J Kidney Dis.</i> 2018;72:284-195.	https://pubmed.ncbi.nlm.nih.gov/29478868/
Go AS, et al. Chronic kidney disease and the risks of death, cardiovascular events, and hospitalization. <i>N Engl J Med.</i> 2004;351:1296-1305.	https://pubmed.ncbi.nlm.nih.gov/15385656/
Carrero JJ, et.al. Albuminuria changes are associated with subsequent risk of end-stage renal disease and mortality. <i>Kidney Int.</i> 2017;91:244-251.	https://pubmed.ncbi.nlm.nih.gov/27927597/
Brenner BM, et al. Effects of losartan on renal and cardiovascular outcomes in patients with type 2 diabetes and nephropathy. <i>N Engl J Med.</i> 2001;345:861-869.	https://pubmed.ncbi.nlm.nih.gov/11565518/
Lewis EJ, et al. Renoprotective effect of the angiotensin-receptor antagonist irbesartan in patients with nephropathy due to type 2 diabetes. <i>N Engl J Med.</i> 2001;345:851-860.	https://pubmed.ncbi.nlm.nih.gov/11565517/
Parving HH, et al. The effect of irbesartan on the development of diabetic nephropathy in patients with type 2 diabetes. <i>N Engl J Med.</i> 2001;345:870-878.	https://pubmed.ncbi.nlm.nih.gov/11565519/
Epstein M, et al. Evaluation of clinical outcomes and costs based on prescribed dose level of renin-angiotensin-aldosterone system inhibitors. <i>Am J Manag Care.</i> 2016;22(11 suppl):S311-S324 and supplement.	https://pubmed.ncbi.nlm.nih.gov/27668789/
Qiao Y, et al. Association between renin-angiotensin system blockade discontinuation and all-cause mortality among persons with low estimated glomerular filtration rate. <i>JAMA Intern Med.</i> 2020;180:718-726.	https://pubmed.ncbi.nlm.nih.gov/32150237/
Bhandari S, et al. renin-angiotensin system inhibition in advanced chronic kidney disease. <i>N Engl J Med.</i> 2022;387:2021-2032.	https://pubmed.ncbi.nlm.nih.gov/36326117/
Tuttle KR, et al. Kidney outcomes in long-term studies of ruboxistaurin for diabetic eye disease. <i>Clin J Am Soc Nephrol.</i> 2007;2:631-636.	https://pubmed.ncbi.nlm.nih.gov/17699475/
Mann JFE, et al. Avosentan for overt diabetic nephropathy. <i>J Am Soc Nephrol.</i> 2010;21:527-535.	https://pubmed.ncbi.nlm.nih.gov/20167702/
Sharma K, et al. Pirfenidone for diabetic nephropathy. <i>J Am Soc Nephrol.</i> 2011;22:1144-1151.	https://pubmed.ncbi.nlm.nih.gov/21511828/
Packham DK, et al. Sulodexide fails to demonstrate renoprotection in overt type 2 diabetic nephropathy. <i>J Am Soc Nephrol.</i> 2012;23:123-130.	https://pubmed.ncbi.nlm.nih.gov/22034636/
Parving HH, et al. Cardiorenal end points in a trial of aliskiren for type 2 diabetes. <i>N Engl J Med.</i> 2012;367:2204-2213.	https://pubmed.ncbi.nlm.nih.gov/23121378/

Reference	Link
Fried LF, et al. Combined angiotensin inhibition for the treatment of diabetic nephropathy. <i>N Engl J Med.</i> 2013;369:1892-1903.	https://pubmed.ncbi.nlm.nih.gov/24206457/
de Zeeuw D, et al. Bardoxolone methyl in type 2 diabetes and stage 4 chronic kidney disease. <i>N Engl J Med.</i> 2013;369:2492-2503.	https://pubmed.ncbi.nlm.nih.gov/24206459/
ElSayed NA, et al; ADA Professional Practice Committee. 9. Pharmacologic approaches to glycemic treatment: standards of care in diabetes—2023. <i>Diabetes Care.</i> 2023;46(suppl 1):S140–S157.	https://diabetesjournals.org/care/article/46/Supplement_1/S140/148057/9-Pharmacologic-Approaches-to-Glycemic-Treatment
Bakris GL. Major advancements in slowing diabetic kidney disease progression: focus on SGLT2 inhibitors. <i>Am J Kidney Dis.</i> 2019;74:573-575.	https://pubmed.ncbi.nlm.nih.gov/31262591/
McGuire DK, et al. Association of SGLT2 inhibitors with cardiovascular and kidney outcomes in patients with type 2 diabetes. <i>JAMA Cardiol.</i> 2021;6:148-158.	https://pubmed.ncbi.nlm.nih.gov/33031522/
Alicic RZ, et al. Diabetic kidney disease: challenges, progress, and possibilities. <i>Clin J Am Soc Nephrol.</i> 2017;12:2032-2045.	https://pubmed.ncbi.nlm.nih.gov/28522654/
Mora-Fernández C, et al. Diabetic kidney disease: from physiology to therapeutics. <i>J Physiol.</i> 2014;592:3997-4012.	https://pubmed.ncbi.nlm.nih.gov/24907306/
Perkovic V, et al. Canagliflozin and renal outcomes in type 2 diabetes and nephropathy. <i>N Engl J Med.</i> 2019;380:2295-2306.	https://www.nejm.org/doi/10.1056/NEJMoa1811744
Ong GSY, Young MJ. Mineralocorticoid regulation of cell function: the role of rapid signalling and gene transcription pathways. <i>J Mol Endocrinol.</i> 2017;58:R33-R57.	https://pubmed.ncbi.nlm.nih.gov/27821439/
Bauersachs J, et al. Mineralocorticoid receptor activation and mineralocorticoid receptor antagonist treatment in cardiac and renal diseases. <i>Hypertension.</i> 2015;65:257-263.	https://pubmed.ncbi.nlm.nih.gov/25368026/
Bertocchio JP, et al. Mineralocorticoid receptor activation and blockade: an emerging paradigm in chronic kidney disease. <i>Kidney Int.</i> 2011;79:1051-1060.	https://pubmed.ncbi.nlm.nih.gov/21412221/
Kolkhof P, et al. Nonsteroidal mineralocorticoid receptor antagonism by finerenone—translational aspects and clinical perspectives across multiple organ systems. <i>Int J Mol Sci.</i> 2022;23:9243.	https://www.mdpi.com/1422-0067/23/16/9243
Kintscher U, et al. Novel non-steroidal mineralocorticoid receptor antagonists in cardiorenal disease. <i>Br J Pharmacol.</i> 2022;179:3220-3234.	https://pubmed.ncbi.nlm.nih.gov/34811750/
Ruilope LM, et al. Design and baseline characteristics of the finerenone in reducing cardiovascular mortality and morbidity in diabetic kidney disease trial. <i>Am J Nephrol.</i> 2019;50:345-356.	https://pubmed.ncbi.nlm.nih.gov/31665733/
Bakris GL, et al. Design and Baseline characteristics of the finerenone in reducing kidney failure and disease progression in diabetic kidney disease trial. <i>Am J Nephrol.</i> 2019;50:333-344.	https://pubmed.ncbi.nlm.nih.gov/31655812/

Reference	Link
Agarwal R, et al. Cardiovascular and kidney outcomes with finerenone in patients with type 2 diabetes and chronic kidney disease: the FIDELITY pooled analysis. <i>Eur Heart J</i> . 2022;43:474-484.	https://pubmed.ncbi.nlm.nih.gov/35023547/
Filippatos G, et al. Finerenone and effects on mortality in chronic kidney disease and type 2 diabetes: a FIDELITY analysis. <i>Eur Heart J Cardiovasc Pharmacother</i> . 2023;9:183-191.	https://pubmed.ncbi.nlm.nih.gov/36639130/
Bakris GL, et al. A prespecified exploratory analysis from FIDELITY examined finerenone use and kidney outcomes in patients with chronic kidney disease and type 2 diabetes. <i>Kidney Int</i> . 2023;103:196-206.	https://pubmed.ncbi.nlm.nih.gov/36367466/
Rossing P, et al. Finerenone in patients with chronic kidney disease and type 2 diabetes by sodium-glucose cotransporter 2 inhibitor treatment: the FIDELITY analysis. <i>Diabetes Care</i> . 2022;45:2991-2998.	https://pubmed.ncbi.nlm.nih.gov/35972218/
Agarwal R, et al. Hyperkalemia risk with finerenone: results from the FIDELIO-DKD trial. <i>J Am Soc Nephrol</i> . 2022;33:225-237.	https://pubmed.ncbi.nlm.nih.gov/34732509/
Bakris GL, et al. Effect of finerenone on chronic kidney disease outcomes in type 2 diabetes. <i>N Engl J Med</i> . 2020;383:2219-2229 and supplement.	https://pubmed.ncbi.nlm.nih.gov/33264825/
Agarwal R, et al. Effect of finerenone on ambulatory blood pressure in chronic kidney disease in type 2 diabetes. <i>J Hypertens</i> . 2023;41:295-302.	https://pubmed.ncbi.nlm.nih.gov/36583355/
Ruilope LM, et al. Blood Pressure and cardiorenal outcomes with finerenone in chronic kidney disease in type 2 diabetes. <i>Hypertension</i> . 2022;79:2685-2695.	https://pubmed.ncbi.nlm.nih.gov/36252131/
Levey AS, et al. Nomenclature for kidney function and disease-executive summary and glossary from a Kidney Disease: Improving Global Outcomes (KDIGO) consensus conference. <i>Eur Heart J</i> . 2020;41:4592-4598.	https://pubmed.ncbi.nlm.nih.gov/33141221/
de Boer IH, et al. Diabetes management in chronic kidney disease: a consensus report by the American Diabetes Association (ADA) and kidney disease: improving global outcomes (KDIGO). <i>Diabetes Care</i> . 2022;45:3075-3090.	https://pubmed.ncbi.nlm.nih.gov/36189689/
Blazek O, Bakris GL. The evolution of “pillars of therapy” to reduce heart failure risk and slow diabetic kidney disease progression. <i>Am Heart J Plus:Cardiol Res Pract</i> . 2022;19:100187	www.sciencedirect.com/science/article/pii/S266602222001045
Naaman SC, Bakris GL. Slowing diabetic kidney disease progression: where do we stand today? <i>Chronic Kidney Disease and Type 2 Diabetes</i> . Arlington (VA), 2021:28-32.	www.ncbi.nlm.nih.gov/books/NBK571719/pdf/Bookshelf_NBK571719.pdf
Lazich I, Bakris GL. Prediction and management of hyperkalemia across the spectrum of chronic kidney disease. <i>Semin Nephrol</i> . 2014;34:333-339.	https://pubmed.ncbi.nlm.nih.gov/25016403/

Reference	Link
<p>Khosla N, et al. Predictors of hyperkalemia risk following hypertension control with aldosterone blockade. <i>Am J Nephrol.</i> 2009;30:418-424.</p>	<p>https://pubmed.ncbi.nlm.nih.gov/19738369/</p>
<p>Bakris GL, et al. Effect of patiromer on serum potassium level in patients with hyperkalemia and diabetic kidney disease: The AMETHYST-DN randomized clinical trial. <i>JAMA.</i> 2015;314:151-161.</p>	<p>https://pubmed.ncbi.nlm.nih.gov/26172895/</p>
<p>Spinowitz BS, et al. Sodium zirconium cyclosilicate among individuals with hyperkalemia: a 12-month phase 3 study. <i>Clin J Am Soc Nephrol.</i> 2019;14:798-809.</p>	<p>https://pubmed.ncbi.nlm.nih.gov/31110051/</p>