Comprehensive management of individuals with CKM syndrome

Muthiah Vaduganathan

Disclosures

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Use of combination therapy may substantially reduce cardiorenal morbidity and mortality



Navaneethan SD, Zoungas S, Caramori ML, et al. Ann Intern Med. 2023;176(3):381-387.



Evolving Standard of Care in CKM in 2024





CKM Management

Stage 0: No CKM Syndrome Risk Factors

Stage 1: Excess and/or Dysfunctional Adiposity

Stage 2: Established CKM Risk Factors

Stage 3: Subclinical CVD in CKM

Stage 4: Patient with CKM Syndrome with Existing CVD

PACE-CME Physicians' Academy for Cardiovascular Education

Ndumele CE, Rangaswami J, Chow SL, et al. Circulation. 2023;148(20):1606-1635.

RAS blockade with ACEi or ARBs is the cornerstone of therapy to improve cardiovascular and renal outcomes

Physiological and detrimental roles of RAAS molecules in cardiac, vascular tissues and kidneys





Physicians' Academy for Cardiovascular Education

Muñoz-Durango N, Fuentes CA, Castillo AE, et al. Int J Mol Sci. 2016;17(7):797.

SGLT2 inhibitors and cardiorenal protection

Areas of overlap for clinical trials with Sodium-Glucose Cotransporter-2 inhibitors in patients with Chronic Kidney Disease



PACE-CME For Cardiovascular Education

Cherney DZ, Odutayo A, Aronson R, et al. J Am Coll Cardiol. 2019;74(20):2511-2524.

GLP-1 Receptor Agonists in Diabetic Kidney Disease: Cardiorenal-Metabolic Protection



Michos ED, Bakris GL, Rodbard HW, Tuttle KR. Am J Prev Cardiol. 2023;14:100502.



FIDELITY: Reduction in Risk of Composite CV and Kidney Outcomes



mL/min/1.73 m² CKD; chronic kidney disease; CV, cardiovascular; eGFR, estimated glomerular filtration rate; HHF, heart failure hospitalization; HR, hazard ratio; MI, myocardial infarction; NNT number needed to treat.

Agarwal R, Fillipatos G, Pitt A, et al. Eur Heart J. 2022;43:474-484.



Estimated lifetime cardiovascular, kidney, and mortality benefits of combination treatment in patients with type 2 diabetes and albuminuria

Outcome	HR (95% CI)	Outcome		HR (95% CI)
MACE	_	CKD progression		
SGLT2i	0.83 (0.75, 0.93)	SGLT2i	_	0.63 (0.53, 0.77)
GLP-1 RA ns-MRA	-■- 0.86 (0.80, 0.93) -■- 0.90 (0.81, 1.00)	GLP-1 RA		7355 48.7 57
GLP-1 RA + ns-MRA	0.50 (0.81, 1.00)			0.86 (0.72, 1.02)
SGLT2i + GLP-1 RA	0.72 (0.63, 0.82)	ns-MRA		0.77 (0.67, 0.88)
SGLT2i + ns-MRA	0.75 (0.65, 0.87)	GLP-1 RA + ns-MRA		0.66 (0.53, 0.83)
SGLT2i + GLP-1 RA + ns-MRA	0.65 (0.55, 0.76)	SGLT2i + GLP-1 RA		0.54 (0.42, 0.70)
Hospitalization for heart failure		SGLT2i + ns-MRA	_	0.49 (0.38, 0.61)
SGLT2i	0.64 (0.53, 0.77)	SGLT2i + GLP-1 RA + ns-MRA		0.42 (0.31, 0.56)
GLP-1 RA				
ns-MRA	0.78 (0.66, 0.92)			
GLP-1 RA + ns-MRA	0.69 (0.57, 0.84)	All-cause mortality		
SGLT2i + GLP-1 RA	- 0.57 (0.47, 0.70) 0.50 (0.39, 0.64)	SGLT2i		0.85 (0.75, 0.96)
SGLT2i + GLP-1 RA + ns-MRA	0.45 (0.34, 0.58)	GLP-1 RA	-	0.88 (0.82, 0.94)
		ns-MRA		0.89 (0.79, 1.00)
Cardiovascular death	_	GLP-1 RA + ns-MRA		0.78 (0.68, 0.90)
SGLT2i	0.84 (0.72, 0.97)	SGLT2i + GLP-1 RA		0.75 (0.65, 0.86)
GLP-1 RA ns-MRA	- 0.87 (0.80, 0.94) 0.88 (0.76, 1.02)			
GLP-1 RA + ns-MRA	0.38 (0.76, 1.02)	SGLT2i + ns-MRA		0.76 (0.64, 0.90)
SGLT2i + GLP-1 RA	0.73 (0.61, 0.86)	SGLT2i + GLP-1 RA + ns-MRA		0.67 (0.55, 0.80)
SGLT2i + ns-MRA	0.74 (0.60, 0.91)			
SGLT2i + GLP-1 RA + ns-MRA	0.64 (0.51, 0.80)			
0.25 0.5	0.75 1 1.25		0.25 0.5 0.75	1 1.25
Favors combination	h therapy Favors conventional care		Favors combination therapy	Favors conventional care



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Neuen BL, Heerspink HJL, Vart P, et al. Circulation. 2024;149(6):450-462.