CMHC
Cardiometabolic Health Congress

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Foundations of Cardiometabolic Health Certification Course

Certified Cardiometabolic Health Professional (CCHP)

Challenging Hypertension Case

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Case

- 63 y/o Black man presents with BP 168/88 mmHg, heart rate-84 bpm and new onset dyspnea on excretion. Also says he has gained 15lbs in last month.
- PMH-Hypertension-x 15 years, Type 2 diabetes x 10 years, hyperlipidemia x 10 yrs.
- FH-+ MI, CAD, HTN and DM, father was on dialysis
- SH-denies smoking has occas. alcohol, manager in a local store.
- PE- pertinent positives-S4+, obese, 1+ pedal edema
- Labs-all normal except K 4.9 mEq/L , eGFR-48 ml/min HbA1c-7.2%, FBS-155mg/dl and LDL-109, UACR 624 mg/g, ECHO-2yrs. earlier showed EF of 50% and had neg. stress test 3 yrs. earlier

Case

Medication	Dose
Losartan	100 mg/d
HCTZ	25 mg/d
Amlodipine	10 mg/d
Atorvastatin	80 mg QD
Metformin	1 g BID
Sitagliptin	100 mg QD
Empagliflozin	10 mg QD

Case

- Repeat ECHO showed EF of 40% and evidence of HFrEF.
- education on <1500 mg/d sodium diet.

Medication	Dose	
Losartan	100 mg/d	Candesartan 32 mg QD
HCTZ	25 mg/d	Chlorthalidone 12.5 mg QD
Amlodipine	10 mg/d	continue
		Spironolactone 25 mg QD
Atorvastatin	80 mg QD	
Metformin	1 g BID	
Sitagliptin	100 mg QD	
Empagliflozin	10 mg QD	

Case

- Patient returned in one month later and stated his DOE was gone and that he felt better.

Medication	Before	After 1 month
BP (mmHg)	168/88	132/78
K (mEq/L)	4.9	4.8
eGFR (mL/min/1.73m2)	48	40
UACR (mg/g)	629	125
HgbA1C (%)	7.2	7.4

ARS Question

- Given these findings what would be the next steps in managing this patient's risk factors?

A. Stop the ARB and spiro and start hydralazine and nitrates
B. Stop the spiro, give a loop diuretic and educate about low K diet
C. Continue treatment but change chlorthalidone to torsemide and educate about low K diet
D. Continue treatment and add a potassium binding agent and educate about low K diet
E. Add finerenone to reduce cardiorenal risk further.

Case

Added finerenone 10 mg QD

Repeat labs in one month K-4.9mEq/L and BP was 130/76 mmHg.

Finerenone dose was increased to 20 mg QD

Patient followed up in 1 month

Case

- Same patient returned in one month later and his DOE was better but not gone. His labs now show:

Medication	Before	After 1 month
BP (mmHg)	168/88	142/82
K (mEq/L)	4.9	5.2
eGFR (mL/min/1.73m2)	48	40
UACR (mg/g)	629	125
HgbA1C (%)	7.2	8.2

ARS Question

- Given these findings what would be the next steps in managing this patient's risk factors?

A. Stop the ARB and spiro and start hydralazine and nitrates
B. Stop the spiro, give a loop diuretic and educate about low K diet
C. Continue treatment but change chlorthalidone to torsemide and educate about low K diet and add a potassium binding agent
D. Add semaglutide, reduce dose of spironolactone to 12.5 mg QD, add carvedilol 12.5 mg BID
E. Add finerenone to reduce cardiorenal risk further.

Case

Added semaglutide, reduce dose of spironolactone to 12.5 mg QD, add carvedilol 12.5 mg BID

- *Semaglutide to induce weight loss and improved diabetes control and improve CV risk.*
- *Carvedilol because patient has HFrEF and high BP*
- *Reduce spironolactone because K increasing.*