



## **RHP Insight Education Curriculum 2025 Curriculum**

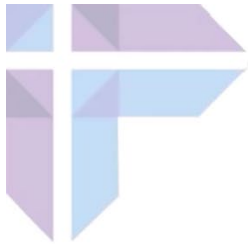


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### **THE HF AND HTN CONUNDRUM: EVIDENCE TO MANAGE THE CONDITION**

**SRHS MGC Value-Based Arrangement Education**

Nick Ulmer MD CPC FAAFP



## **VALUE-BASED ARRANGEMENT EDUCATION**

The following is required reading as introduction to this educational session. Please pause the slides as you need to allow time to read this information



## VALUE-BASED ARRANGEMENT EDUCATION

This presentation follows our prior correspondence and meetings regarding the new value-based incentive component of the 2025 SRHS Primary Care Compensation Model. The Value-Based Incentive is detailed in the 2025 Primary Care Physician Employment agreement (Exhibit A-6).

Spartanburg Regional Healthcare System has created a Value-Based Enterprise with employed primary care physicians. Through the Value-Based Enterprise, the parties will collaborate to achieve goals for patients in the district service area. These goals include coordinating and managing care, improving the quality of care, and transition in healthcare delivery and payment to mechanisms based on the quality of care and control of cost of care.

The Value-Based Enterprise will achieve these goals through the Value-Based Activities described in the Value-Based Incentive portion of the Physician Employment Agreement. These activities include successful completion of diagnosis code training and accurate diagnosis code utilization as measured through educational chart reviews and other activities.



## VALUE-BASED ARRANGEMENT EDUCATION

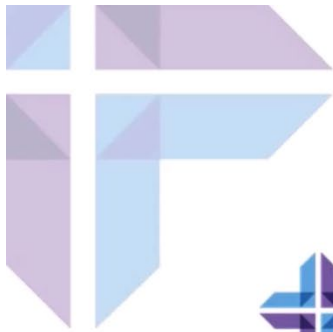
Appropriate, accurate, and specific diagnosis code utilization is a core component of medical documentation and care coordination. Proper and accurate utilization of diagnosis codes strengthen the medical documentation and ensures the patient's conditions are fully memorialized in the medical record. These activities enhance both quality of care and efforts to coordinate and manage care of patients for the District. This training module is intended to provide additional training background and resources for accurate diagnosis code utilization.

The Value-Based Enterprise reflects a collaborative process, created by regulatory agencies. MGC, in conjunction with RHP, will oversee, monitor and administer the Value-Based Enterprise's activities. Exhibit A-6 of your Physician Employment Agreement describes the governance and operation of the value-based efforts.



## VALUE-BASED ARRANGEMENT EDUCATION

As SRHS moves into value-based clinical arrangements, the importance of documentation accuracy cannot be overstated. Previous provider educational chart reviews have shown opportunities to better align clinical thought-work with chronic condition documentation of medical necessity in our encounters. The intent of this education is to help educate providers to be more “clinically correct” in the written expression of our work with the patients we care for.



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### THE HF AND HTN CONUNDRUM: EVIDENCE TO MANAGE THE CONDITION

**SRHS MGC Value-Based Arrangement Education**

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## Objectives

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- Know the clinical overview and implications of hypertension and heart failure
- State the Stars quality measure associated with hypertension and strategies to succeed in this measure
- Know basic evidence-based pathways of management of patients with hypertension and/or heart failure



## Hypertension<sup>1-10</sup> and Heart Failure

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- Significant risk factor for a variety of cardiovascular diseases
  - CVA, coronary artery disease, heart failure, and peripheral arterial disease
  - Optimal BP control helps lessen the occurrence/advancement of these
- Optimal was based on ACCORD (Action to Control CV Risk in DM) with goal <140/<90 regardless of risk profile
- Recent info from SPRINT (Systolic Blood Pressure Intervention Trial), STEP (Strategy of Blood Pressure Intervention in the Elderly Hypertensive Patients) and reanalyzed ACCORD subgroup data have led to changes in this approach
  - Now, a more aggressive approach of <130/<80 as a goal (as long as tolerated) esp for those CV disease risk (CVD, high-risk HTN, CKD w albuminuria, lacunar infarction, etc.)
- CMS Stars is still <140/<90 for all populations and all ages. Still triple weighted in TWO metrics.



## HTN focus of our efforts: 2025 Triple Weighted

- Controlling BP (<140/<90) **3**
- Diabetes Care – blood sugar control (A1c < 9)\* **3**
- Medication Adherence
  - For Diabetes (meds other than insulin) **3**
  - For Hypertension (RAS use) **3**
  - For Lipids (Statins) **3**

\*varies with ACO or Stars

### 2025 Stars/ACO Quality Metrics (updated 11.2024)

Measure	Program		Star Category & Weight		Thresholds <small>10/23/2024</small>	
	Stars	ACO	Part C or D?	Weight	4 Star	5 Star
Care for Older Adults - Functional Status Assessment	✓		C	1	77%	91%
Care for Older Adults - Medication Review	✓		C	1	92%	98%
Care for Older Adults - Pain Screening	✓		C	1	92%	96%
Medication Adherence for Diabetes	✓		D	3	87%	91%
Medication Adherence for Hypertension (RAS)	✓		D	3	90%	92%
Medication Adherence for Cholesterol (Statins)	✓		D	3	89%	93%
TRC: Medication Reconciliation Post-Discharge	✓		C	0.5	73%	87%
TRC: Patient Engagement After Inpatient Discharge	✓		C	0.5	63%	77%
Follow-Up After ED Visit for MCC	✓		C	1	60%	69%
Plan All-Cause Readmissions*	✓		C	3	10%	8%
Osteoporosis Management in Women w/ Fracture	✓		C	1	52%	71%
Kidney Health Evaluation for Patients with Diabetes	✓		C	1	52%	67%
Statin Use in Persons with Diabetes	✓		D	1	89%	93%
Eye Exam for Patients with Diabetes	✓		C	1	77%	83%
Glycemic Status Assessment for Patients with Diabetes (<=9%): HbA1c Control	✓	✓	C	3	84%	90%
Breast Cancer Screening	✓	✓	C	1	75%	82%
Colorectal Cancer Screening	✓	✓	C	1	75%	83%
Controlling Blood Pressure	✓	✓	C	3	80%	85%
Statin Therapy for Cardiovascular Disease	✓	✓	C	1	88%	92%
Falls: Screening for Future Fall Risk		✓				
Depression Screening		✓				
Depression Remission at Twelve Months		✓				
Influenza Immunization		✓				
Tobacco Screening and Cessation Intervention		✓				

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### Controlling Blood Pressure (CBP)

- The percentage of patients (18–85 years of age) with hypertension and blood pressure adequately controlled (<140/<90 mm Hg) as of December 31 (*last BP*) of the measurement year.
  - need CPT II code, data feed to report





## Controlling Blood Pressure CPT II Codes

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- |                |             |              |           |
|----------------|-------------|--------------|-----------|
| ▪ <u>3074F</u> | SBP < 130   | <u>3078F</u> | DBP < 80  |
| ▪ <u>3075F</u> | SBP 130-139 | <u>3079F</u> | DBP 80-89 |
| ▪ <u>3077F</u> | SBP ≥ 140   | <u>3080F</u> | DBP 90    |



## Controlling Blood Pressure (CBP)

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- The percentage of patients (18–85 years of age) with hypertension and blood pressure adequately controlled (<140/<90 mm Hg) as of December 31 (*last BP*) of the measurement year.
  - need CPT II code, data feed to report
- Capture in office visit, video visit, telephone (patient reported), or e-visit
  - Patient reported need to be collected with a validated digital device and in record
- 4 Star ≥80% (was 74%) to <85%; 5 Star is ≥85% (was ≥82%) ideal control (<140/<90 is goal)



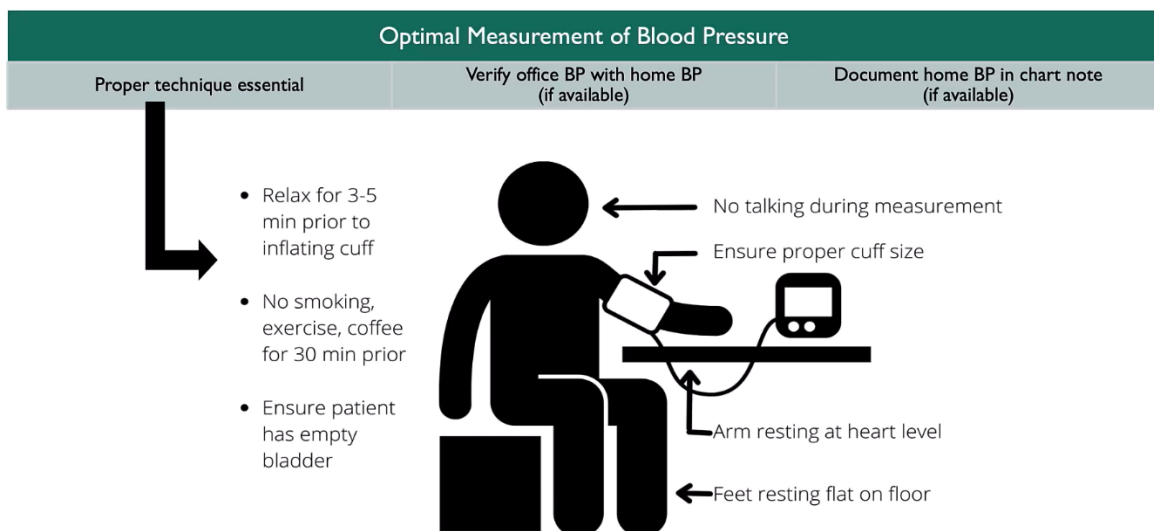


## 5 Star BP strategy

- Make sure your staff can check BP correctly and teach patients. Have them report this back to you (it COUNTS now!)
  - If HIGH, then recheck before leaving
  - If at subspecialty office, then get them to refer to you but have the patient check BP at home in the interim – phone call BP results count as though in person!!! Do f/u!
  - If in ED/hospital, this does not count

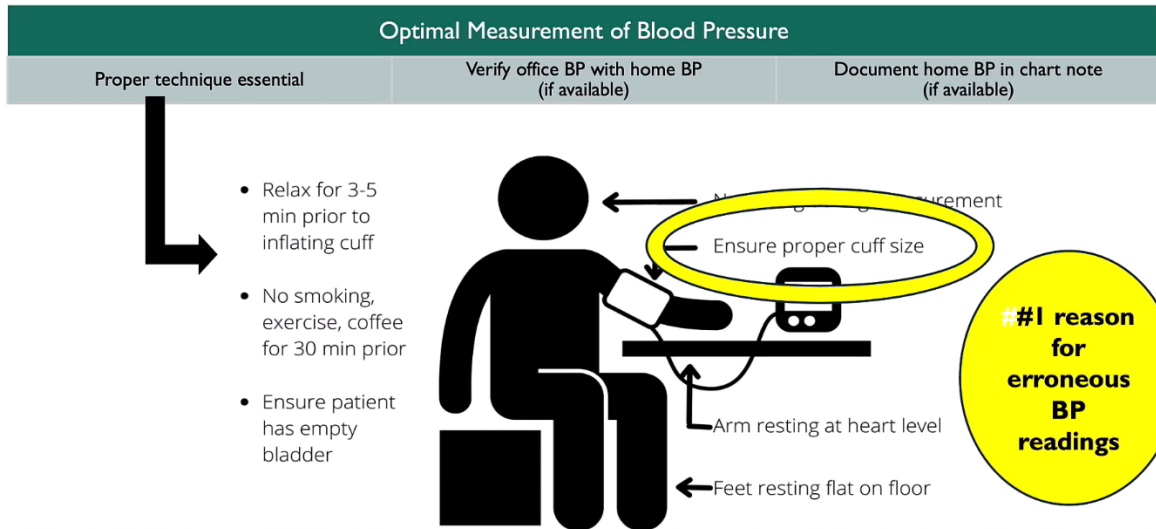


## Hypertension Management STEP I: Correct Assessment

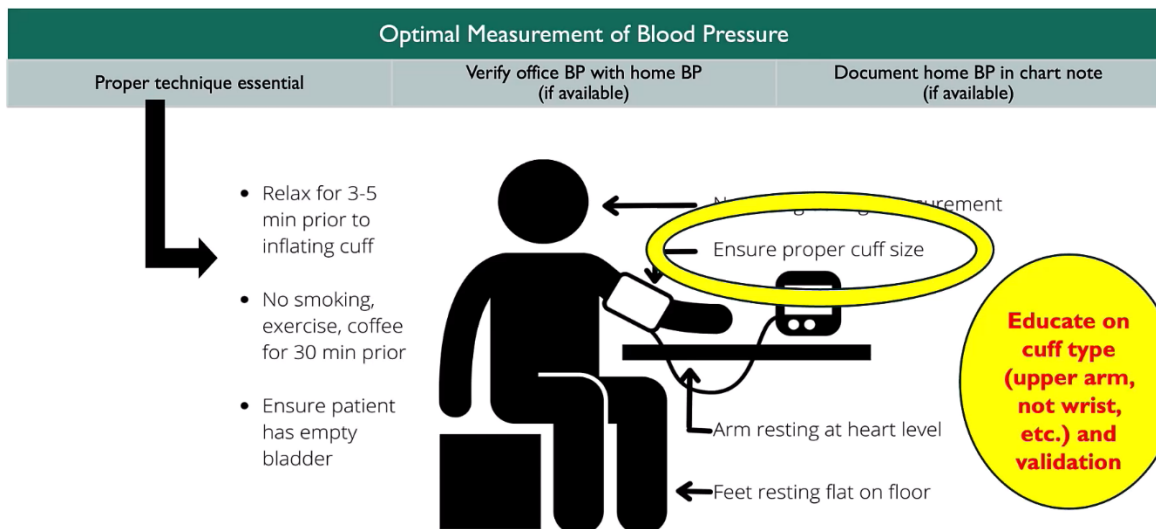




## Hypertension Management STEP I: Correct Assessment



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## Hypertension Management STEP I: Correct Assessment

Optimal Measurement of Blood Pressure		
Proper technique essential	Verify office BP with home BP (if available)	Document home BP in chart note (if available)



### 5 Star BP strategy

- Make sure your staff can check BP correctly and teach patients. Have them report this back to you (it COUNTS!)
- Lifestyle, DASH eating plan, MOVE more and sit less
  - No smoking, no alcohol, limit sodium (K<sup>+</sup> OK)



## 5 Star BP strategy

- Make sure your staff can check BP correctly and teach patients. Have them report this back to you (it COUNTS!)
- Lifestyle, DASH eating plan, MOVE more and sit less
- Aggressive BP management – every 3 months until at goal (labs). CMS is below 140/90, you clinically decide what is best for the patient
- End of year push
  - BPs that are still up in November, have patient check home BPs and call them in to office. If up, then have office encounter in early December to optimize therapy.
- Encourage medication compliance (Step 2 in successful management)

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## Step 2 BP Success - Medication Adherence

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- Medication nonadherence is a major contributor to poor control of hypertension and several studies show improved clinical outcomes for patients who are adherent to their medications<sup>3</sup>



## Medication Adherence Defined

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- A patient taking their medications (getting the med filled) over the course of the year 80% of the time (292 days if on med 01/01/2025)
  - If diagnosed with a condition that requires a medication, then it is 80% of the time left in the year
  - 90d Rx have higher fill rates, but one miss puts you at 75%.....
    - .....and that patient then FALLS OUT (is non-adherent) of the measure score
- Exclusions: hospice, ESRD



## What counts in HTN Med Adherence?

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- **Renin-angiotensin system (RAS) antagonists** commonly used in the treatment of hypertension and proteinuria in patients with diabetes, in which these drugs have been shown to delay renal failure and heart disease<sup>1,2</sup>
- Patients 18 years of age and older w/ Dx given a Rx for Renin-Angiotensin System (RAS) Antagonist drugs
  - **Angiotensin Converting Enzyme Inhibitor (ACEI), Angiotensin Receptor Blocker (ARB), or Direct Renin Inhibitor (DRI)**
- Exclusions include those patients in hospice, those with ESRD, and those who have one or more Rx fill for sacubitril/valsartan. Also 65+ with advanced illness
- 4-Star success is at 90% (was 89%) compliance, 5-Star is 92% (was 91+%)

<sup>1</sup>Lau DT, Nau DP. Oral antihyperglycemic medication nonadherence and subsequent hospitalization among individuals with type 2 diabetes. *Diabetes Care*. 2004; 27(9):2149-53.

<sup>2</sup>Whelton PK, Carey RM, Aronow WS, et al. 2017 ACC/AHA/AAPA/ABC/ACPM/AGS/APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults: Executive Summary: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Soc Hypertens*. 2018; 12(8):579.e1-579.e73.

<sup>3</sup>Sokol MC, McGuire KA, Verbrueee RR, Eostein RS. Impact of medication adherence on hospitalization risk and healthcare cost. *Med Care*. 2005; 43(6):521-30.



## Medication Non-Adherence Reasons

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- It depends on which article you read.... So ALL are true:
  - Lack of understanding of regimen, complex regimen (TID vs qD)
  - Forgetting
  - Side effects (or fear of such...)
  - Transportation, SDOH related issues
  - Cost
  - Perception of importance...so ASK *how many doses* they have missed in a week





## What can we as a TEAM do ... the “fix”

- Change over 30d Rx to 90d and (best practice) is MAIL ORDER to home
  - Addresses cost and time and travel
- Simplify the regimen: combination pills taken qd vs QID regimens. Don't cut pills
- Use a pill dispensary (and get a family member to fill it?)
- Educate and RE-educate about the long-term disease effects and the medication benefit to help avoid these negative outcomes
- Always update the prescription at the pharmacy when changing doses
- Address the “offenders” from last year early and repeatedly in office visits



## Hypertension Management: Step 3: Medication Management

### Drug selection Pearls

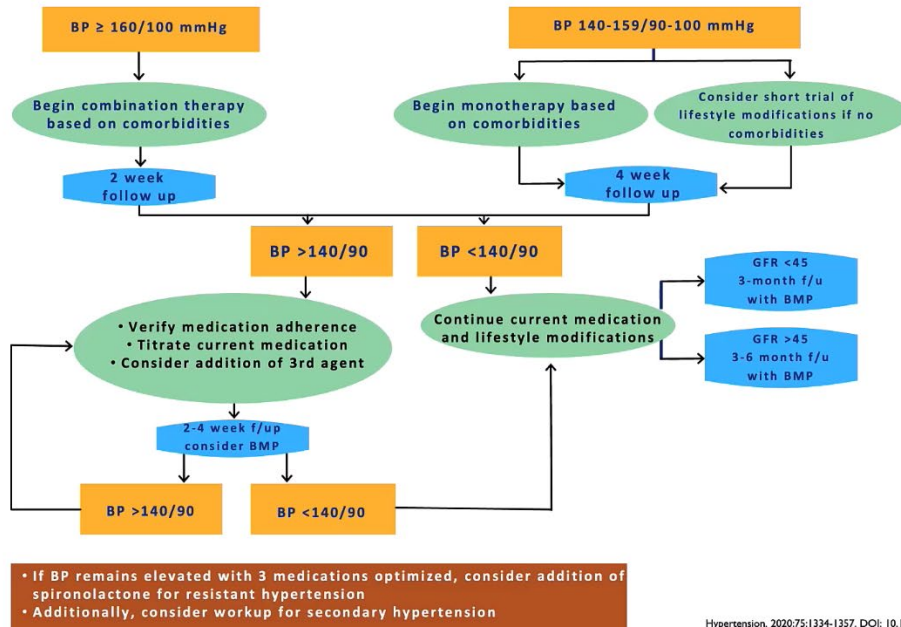
- ACE/ARB, thiazide/thiazide-like diuretic or DHP-CCB are all reasonable first line therapies
  - With DM,ASCVD, CKD give preference to ACE or ARB as first line (do not use ACE/ARB together or an ARB with the DRI aliskiren). LVH reduction seen with these as well
  - Role of beta blockers in HTN is limited to those with LV dysfunction and/or post-MI
- For black patients without CKD, consider DHP-CCB first line
- Women with osteopenia/osteoporosis, Thiazide diuretics reduce renal excretion of calcium and preserve hip and spine bone mineral density. But, are less effective if GFR<30.
- Men with urinary symptoms, consider alpha blockers (terazosin, prazosin, doxazosin) for dual effects. Caution: orthostatic BP.
- In gout patients, Losartan or calcium channel blockers are safer than thiazide/loop diuretics and beta blockers

### Key Medication Classes

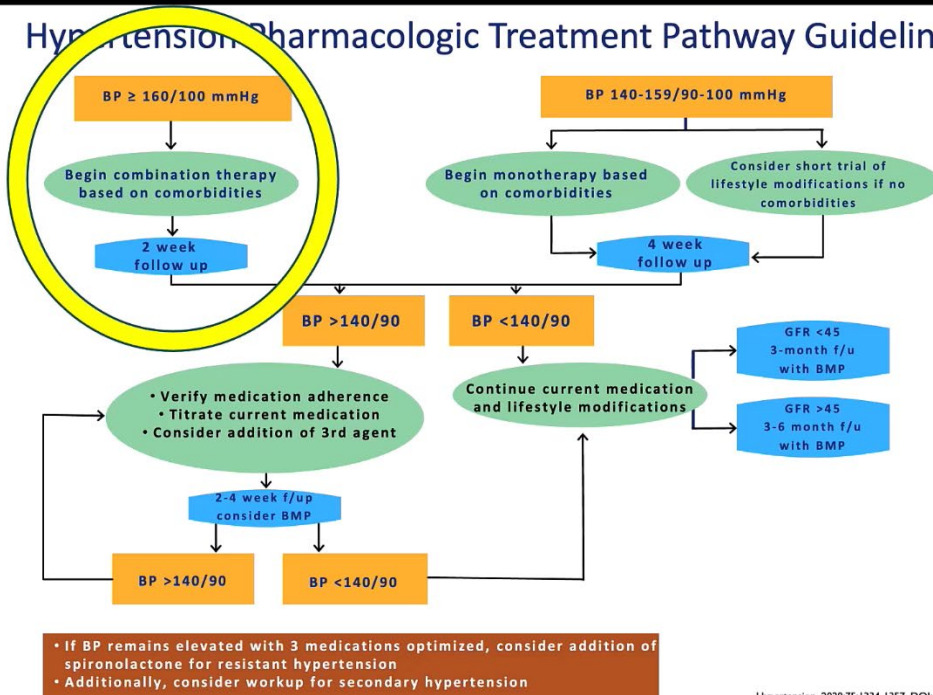
Angiotensin Converting Enzyme (ACE) Inhibitors	Angiotensin Receptor Blockers (ARB)	Thiazide/Thiazide-like diuretic	Dihydropyridine Calcium Channel Blocker (DHP-CCB)
Benazepril	Azilsartan	Chlorthalidone	Amlodipine
Captopril	Candesartan	Chlorothiazide	Felodipine
Enalapril	Eprosartan	Hydrochlorothiazide	Isradipine
Fosinopril	Irbesartan	Indapamide	Nicardipine
Lisinopril	Losartan	Metolazone	Nifedipine
Moexipril	Olmesartan		Nisoldipine
Perindopril	Telmisartan		
Quinapril	Valsartan		
Ramipril			
Trandolapril			

Journal of Clinical Hypertension. 2014;16:14-2  
 Hypertension. 2015;65:1372-1407  
 Diabetes Care 2017;40(suppl 1):S75-87  
 Kidney Int Suppl 2012;2  
 JAMA. 2014;311(5):507-20.

# Hypertension Pharmacologic Treatment Pathway Guidelines

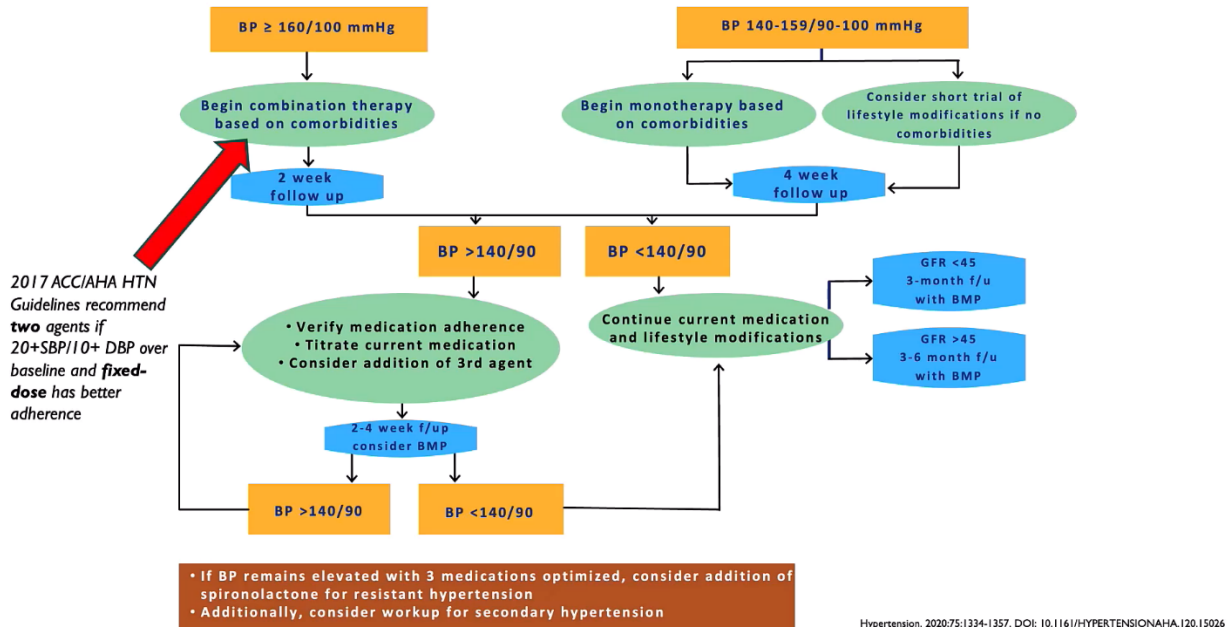


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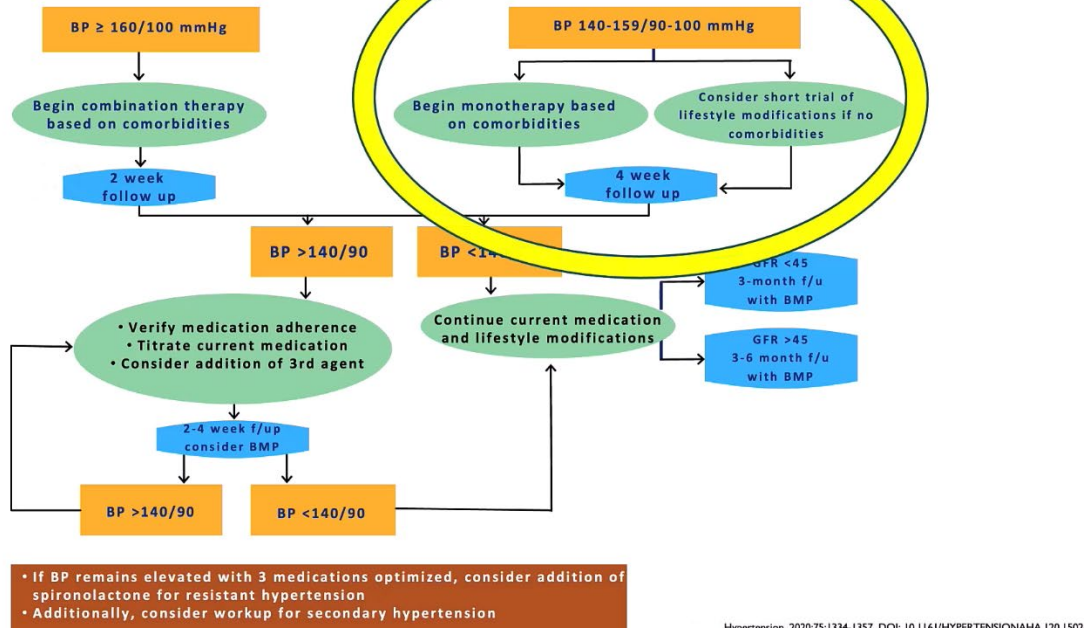




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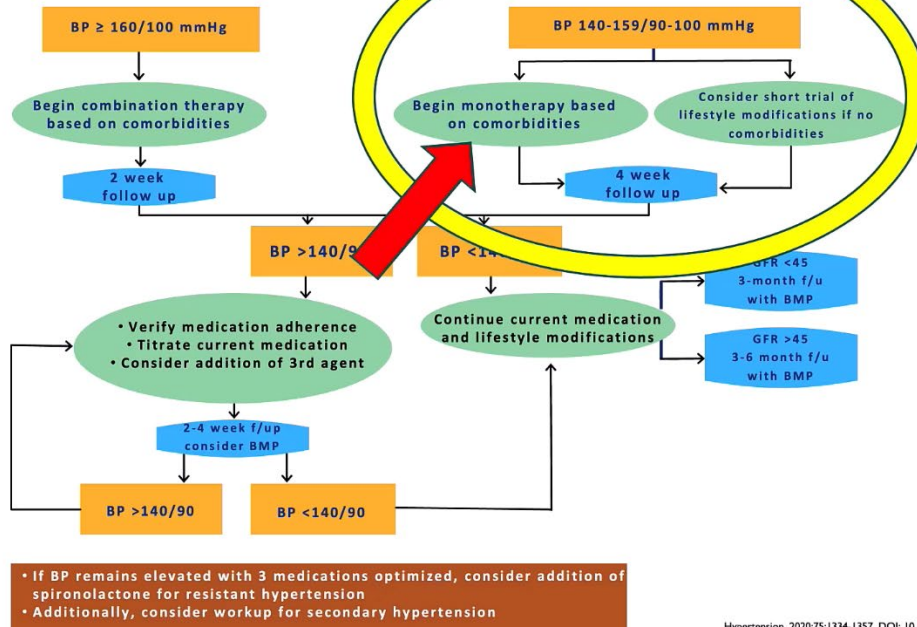


Illustration: 2020-76-1324, 1327, DOI: 10.1161/HYPERTENSION.119.1579

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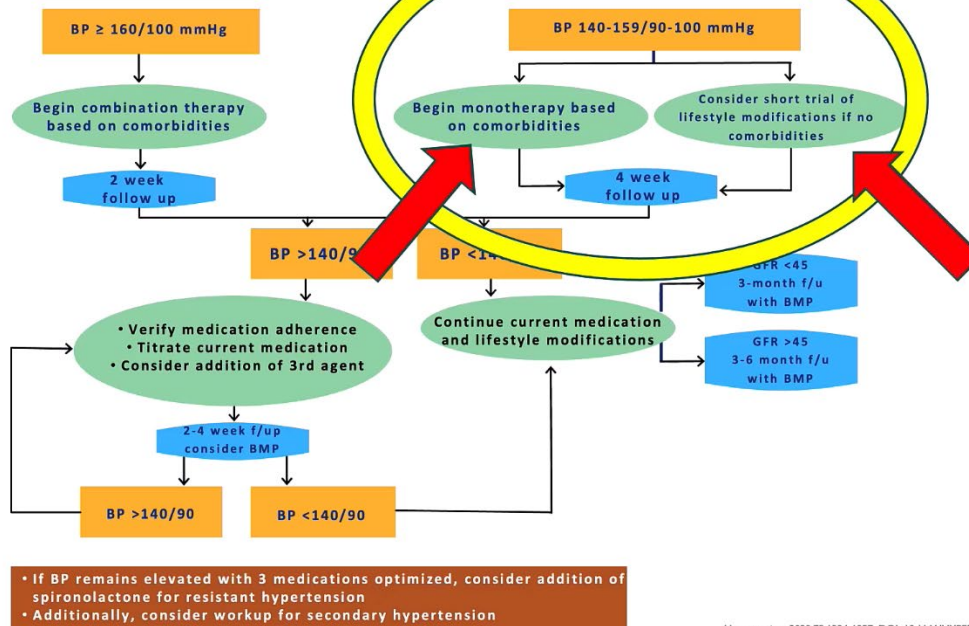


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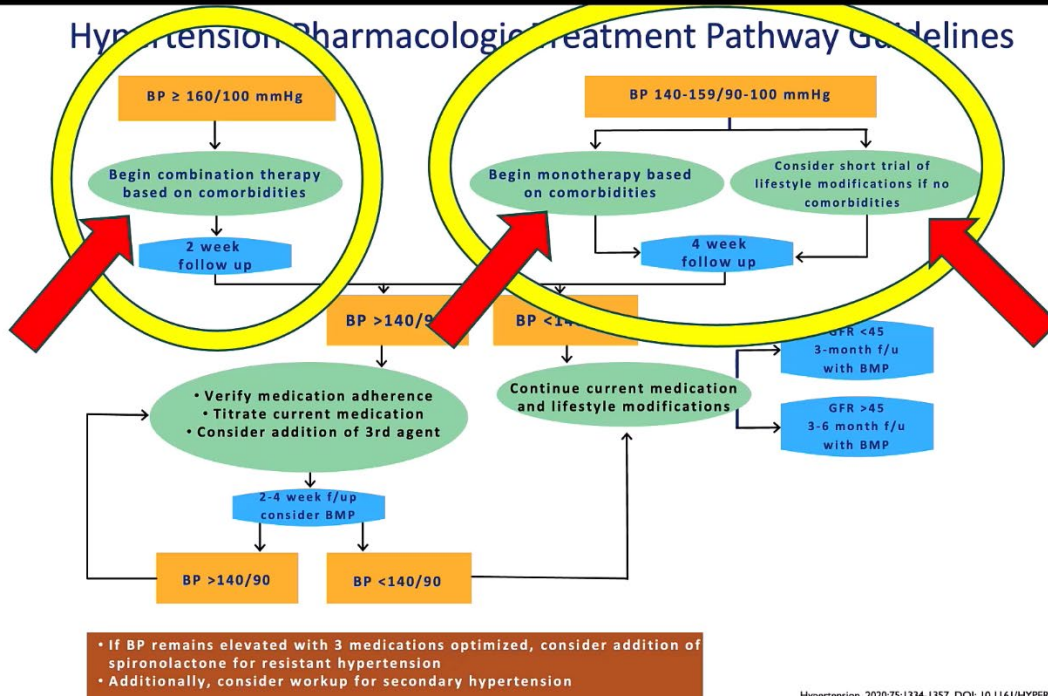


Illustration: 2020-75-1324, 1327, DOI: 10.1161/HYPERTENSION.119.1570

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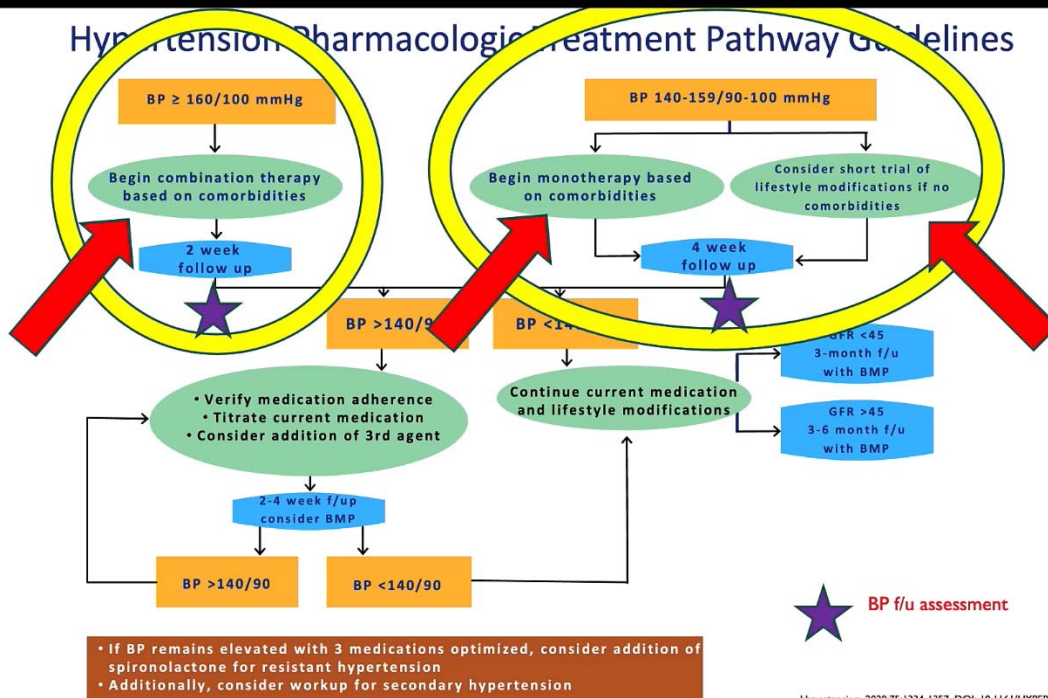
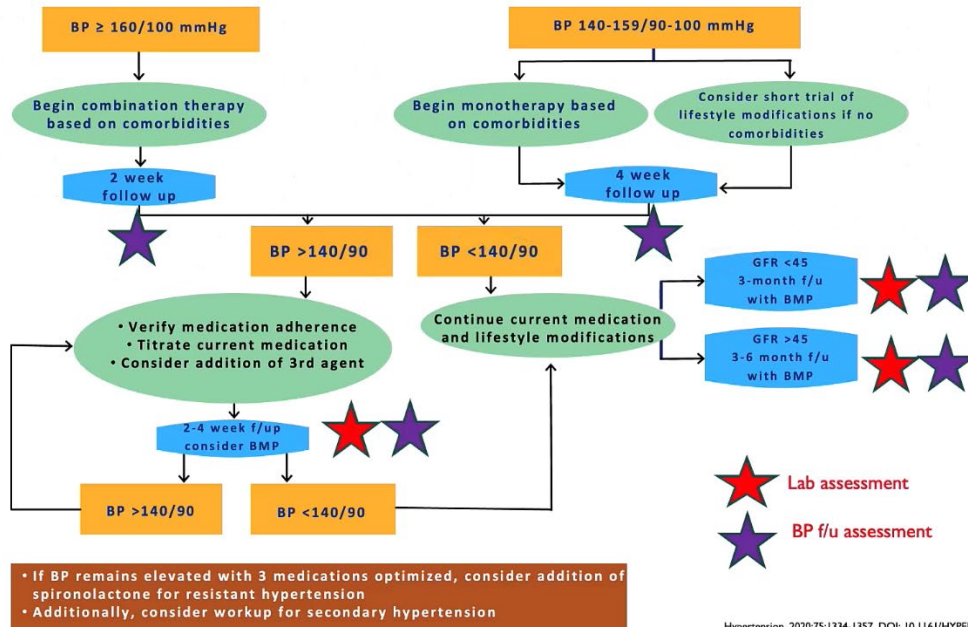
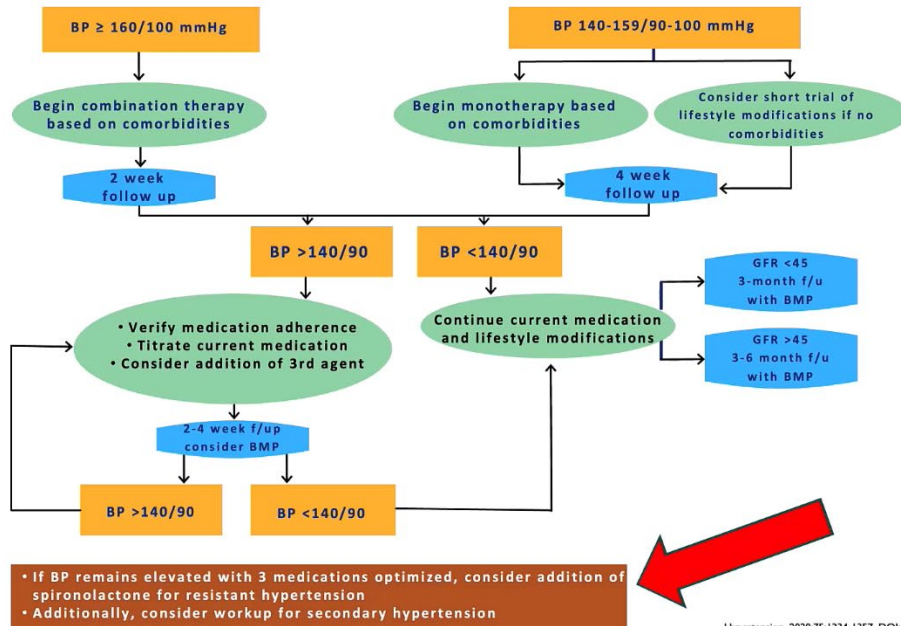


Illustration: 2020-75-1324, 1327, DOI: 10.1161/HYPERTENSION.119.1570

## Hypertension Pharmacologic Treatment Pathway Guidelines



## Hypertension Pharmacologic Treatment Pathway Guidelines





## Hypertension Management: Medication Management Pearls

- **Recommended safety monitoring for key medication classes:**
  - Consider labs at 2 week follow up BP check if needed based on medication initiated/adjusted
  - More frequent labs may be clinically warranted if patient has CKD or other co-morbidities

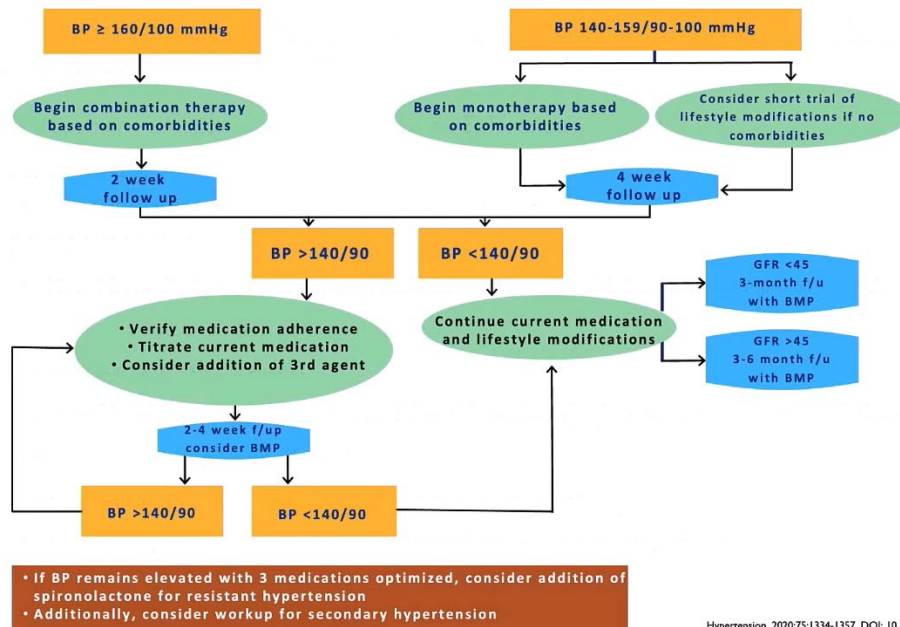
Angiotensin Converting Enzyme (ACE) Inhibitors	Angiotensin Receptor Blockers (ARB)	Thiazide/Thiazide-like diuretic	Dihydropyridine Calcium Channel Blocker (DHP-CCB)
<ul style="list-style-type: none"> <li>•BMP 1-2 weeks after initiation, then minimum of q3 months</li> <li>-Hyperkalemia</li> <li>-Increase SCr/decr eGFR</li> <li>•Angioedema</li> <li>•Cough</li> <li>•Hypotension</li> <li>•Contraindicated in pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>•BMP 1-2 weeks after initiation, then minimum of q3 months</li> <li>-Hyperkalemia</li> <li>-Increase SCr/decr eGFR</li> <li>•Angioedema</li> <li>•Cough</li> <li>•Hypotension</li> <li>•Contraindicated in pregnancy</li> </ul>	<ul style="list-style-type: none"> <li>•BMP 1-2 weeks after initiation/titration</li> <li>-Hypokalemia</li> <li>-Efficacy diminished if GFR &lt;30</li> <li>•Increases calcium, uric acid, glucose</li> </ul>	<ul style="list-style-type: none"> <li>•Headache</li> <li>•Flushing</li> <li>•Pedal edema (better with ACE/ARB combo)</li> <li>•Gingival hyperplasia</li> </ul>



## Hypertension Management: Resistant Hypertension

- **DRUG OF CHOICE:**
  - Aldosterone antagonist: Spironolactone or Eplerenone
  - ASCOT Trial:
    - Mean 22/10 mmHg reduction with spironolactone as 4<sup>th</sup> agent
  - PATHWAY-2 Trial:
    - Mean 14.4 mmHg SBP reduction with spironolactone vs 8-9 mmHg with Doxazosin & bisoprolol, 4.2 mmHg with placebo
- **Aldosterone Antagonist Pearls:**
  - Dosing: 12.5-25mg initially, titrate to 50mg if needed (higher doses used in HTN than HF)
  - Avoid if GFR <45 ml/min, K >4.5
  - Monitor BMP within 7 days of initiation and dose titration
    - Be particularly mindful when combined with ACE/ARB due to added risk of hyperkalemia

## Hypertension Pharmacologic Treatment Pathway Guidelines



## Hypertension and **Heart Failure**

- Affects 6.7 million Americans and is on the rise
- Hospital admissions are common and should raise concern as 20-30% risk of death within one year
- Due to the clinical instability of this population, a heightened focus on optimizing the 4 pillars of Guideline-Directed-Medical-Therapy (GDMT) is key



## Heart Failure Stages

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- **Stage A:** At risk for heart failure **but no signs/symptoms**.
  - Patients with HTN, obesity, CVD, DM, +FH cardiomyopathy, exposure to cardiotoxic agents, genetic variant for cardiomyopathy
- **Stage B:** Pre-heart failure. **No current/previous symptoms**, but have evidence of one of
  - Structural heart disease, increased filling pressures, or risk factors (see above) with increased BNP or persistently elevated cardiac troponin which indicate cardiac stretch/injury
- **Stage C:** Symptomatic heart failure either presently or previously
  - Guideline-directed medical therapy (GDMT) is key in managing the condition
- **Stage D:** Advanced heart failure
  - Symptoms interfere with daily life and usually have associated recurrent hospitalizations. Guideline-directed medical therapy (GDMT) optimization is needed



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## Heart Failure Classification and Diagnosis

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### Echocardiogram

- Reduced ejection fraction (EF <40% = HFrEF)
- Preserved ejection fraction (EF >50% = HFpEF)

### Chest X-Ray

### Evaluate labs

- CBC
- CMP
- TSH
- BNP



## HFrEF Treatment

---

- HFrEF:
  - Guideline Directed Medical Therapy (GDMT) – 4 mainstays
    - Begin with volume management using **aldosterone antagonists** w or w/o loop diuretics as needed
    - **Beta blockers** (metoprolol succinate, carvedilol, bisoprolol), and **ARNI/ACEI/ARB** for all unless contraindicated
    - Add **SGLT2 inhibitor**: Dapagliflozin (Farxiga®), Sotagliflozin (Inpefa®) and Empagliflozin (Jardiance®) are approved for HFrEF . Hold 3d prior to surgery. Only Sotagliflozin (Inpefa®) needs titration and renal concerns. (See HFpEF section)
  - Add simultaneously
  - Titrate to target dose, even if symptoms are stable/improving
  - HR target 70bpm or less, assess hemodynamic stability





## HFrEF Treatment

**For ALL patients:**  
 ACE Inhibitor or ARB or ARNI  
 AND Evidence based Beta Blocker  
 AND Aldosterone Antagonist (CrCl >30 ml/min, K<sup>+</sup> <5)  
 AND SGLT2 inhibitor



**Initiate loop diuretic**  
 (dose prn or daily as clinically indicated)



**Titrate ACE/ARB/ARNI, BB, Aldosterone Antagonist to target doses as clinically tolerated**  
 Continue diuretic prn or daily  
 Follow up symptoms q1-6 months and prn

	Starting Dose	Target Dose
<b>ARNI: *starting dose and timing dependent on current ACE/ARB dose</b>		
Sacubitril/Valsartan (Entresto®)	24/26mg twice daily	97/103mg twice daily
<b>ACE Inhibitors</b>		
Enalapril	2.5mg twice daily	10mg twice daily
Lisinopril	2.5mg once daily	20-40mg once daily
Captopril	6.25mg three times daily	50mg three times daily
<b>ARBs</b>		
Valsartan (Diovan®)	20-40mg twice daily	160mg twice daily
Candesartan (Atacand®)	4-8mg once daily	32mg once daily
Losartan (Cozaar®)	25mg once daily	50-100mg once daily
<b>Evidence Based Beta Blockers</b>		
Bisoprolol	2.5mg once daily	10mg once daily
Carvedilol (Coreg®)	3.125mg twice daily	25mg twice daily
Metoprolol Succinate (Toprol XL®)	12.5-25mg once daily	200mg once daily
<b>Aldosterone Antagonist</b>		
Spirinolactone	12.5-25mg once daily	25-50mg once daily
Eplerenone (Inspra®)	12.5-25mg once daily	25-50mg once daily



## HFrEF Treatment

**For ALL patients:**  
 ACE Inhibitor or ARB or ARNI  
 AND Evidence based Beta Blocker  
 AND Aldosterone Antagonist (CrCl >30 ml/min, K<sup>+</sup> <5)  
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**Initiate loop diuretic**  
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**Titrate ACE/ARB/ARNI, BB, Aldosterone Antagonist to target doses as clinically tolerated**  
 Continue diuretic prn or daily  
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	Starting Dose	Target Dose
<b>ARNI: *starting dose and timing dependent on current ACE/ARB dose</b>		
Sacubitril/Valsartan (Entresto®)	24/26mg twice daily	97/103mg twice daily
<b>ACE Inhibitors</b>		
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**For ALL patients:**  
 ACE Inhibitor or ARB or ARNI  
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**Initiate loop diuretic**  
 (dose prn or daily as clinically indicated)



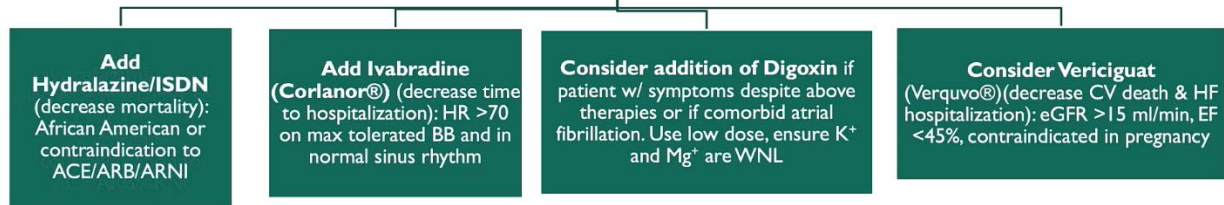
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 Follow up symptoms q1-6 months and prn

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<b>ARNI: *starting dose and timing dependent on current ACE/ARB dose</b>		
Sacubitril/Valsartan (Entresto®)	24/26mg twice daily	97/103mg twice daily
<b>ACE Inhibitors</b>		
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Eplerenone (Inspra®)	12.5-25mg once daily	25-50mg once daily



## HFrEF Subsequent Treatment

**If persistent symptoms, continue to add as appropriate (Begin → End)**





## HFpEF Treatment

- HFpEF:
  - Start with loop diuretics for volume management. If significant edema despite loop, add aldosterone if eGFR/K+ normal
  - Get BP and HR as low as tolerated – use beta blockers, diltiazem, verapamil (rate – 70bpm is target) as well as ACEI/ARB and consider nitrates, hydralazine
  - Add SGLT2 Inhibitor (note to hold med at least 3d prior to surgery – DKA risk)
    - Empagliflozin (Jardiance®) – FDA approved for all types HF – no titration  
Start 10mg qam as long as eGFR  $\geq$  20.
    - Dapagliflozin (Farxiga®) – FDA approved for all types HF – no titration  
Start 10mg qam. Avoid initiation of treatment if eGFR  $<$ 25. May stay on if eGFR drops  $<$ 25
    - Sotagliflozin (Inpefa®) – FDA approved (05/2023) – HF titration  
Start 200mg qd, increase after 2wk. eGFR must be  $>$  25 to start, do not use if  $<$  15

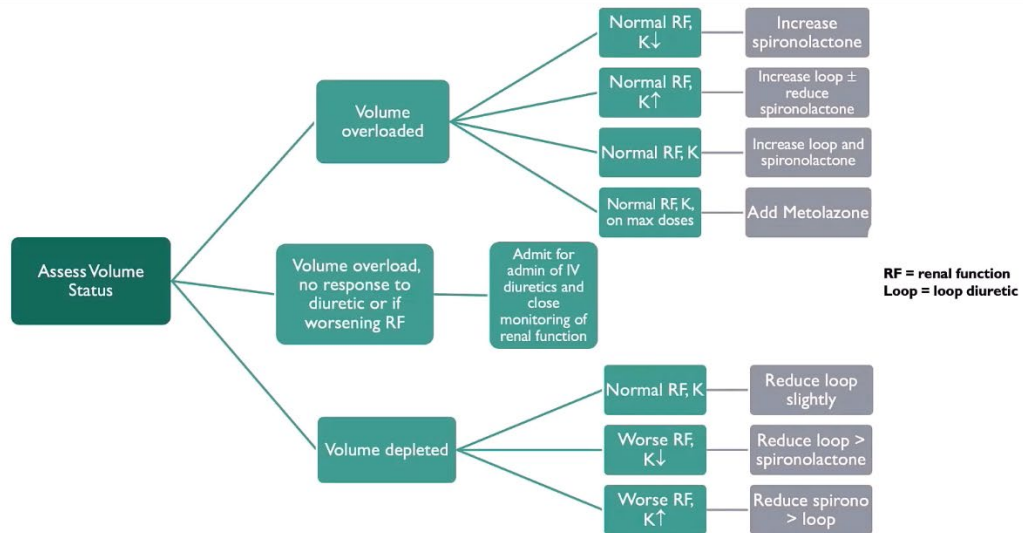


## Global HF Treatment Overview

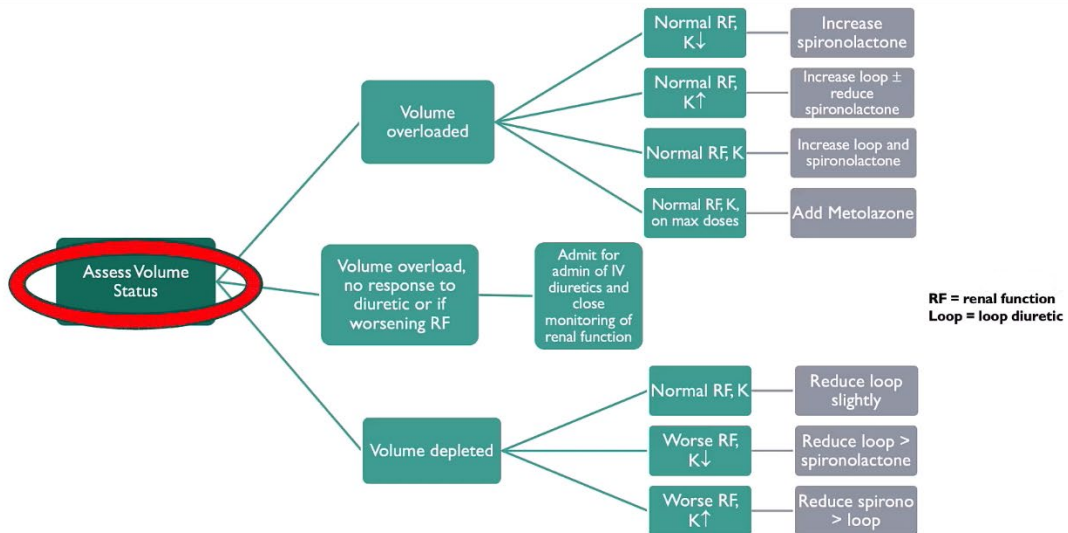
- HFrEF:
  - Begin with volume management using aldosterone antagonists w or w/o loop diuretics as needed
  - Initiate Guideline Directed Medical Therapy (GDMT) – 4 mainstays
    - Beta blockers (metoprolol succinate, carvedilol, bisoprolol), and ARNI/ACEI/ARB for all unless contraindicated
      - Titrate to target dose, even if symptoms are stable/improving
      - Get BP as low as tolerated without orthostasis. HR target 70bpm or less
    - Add SGLT2 inhibitor: Dapagliflozin (Farxiga®) & Empagliflozin (Jardiance®), and Sotagliflozin (Inpefa®) are approved for HF. SGLT2i meds hold 3-4d prior to surgery.
- HFpEF:
  - Start with loop diuretics for volume management. If significant edema despite loop, add aldosterone if eGFR/K+ normal
  - Get BP and HR as low as tolerated – use beta blockers, diltiazem, verapamil (rate -70 is target) as well as ACEI/ARB and consider nitrates, hydralazine (BP)
  - Add SGLT2 Inhibitor (Empagliflozin®, Dapagliflozin (Farxiga®), and Sotagliflozin (Inpefa®) are FDA approved. Hold 3-4d prior to surgery.
- Treat all comorbidities to goal (HTN, arrhythmias, diabetes, pulmonary conditions, sleep apnea, etc.)
- **Counseling, education: salt restriction, fluid restriction (if hyponatremic) and other strategies based on conditions (smoking cessation, weight optimization, glucose control, etc.).**



## Acute Treatment to Avoid Hospitalization: Volume Status Management

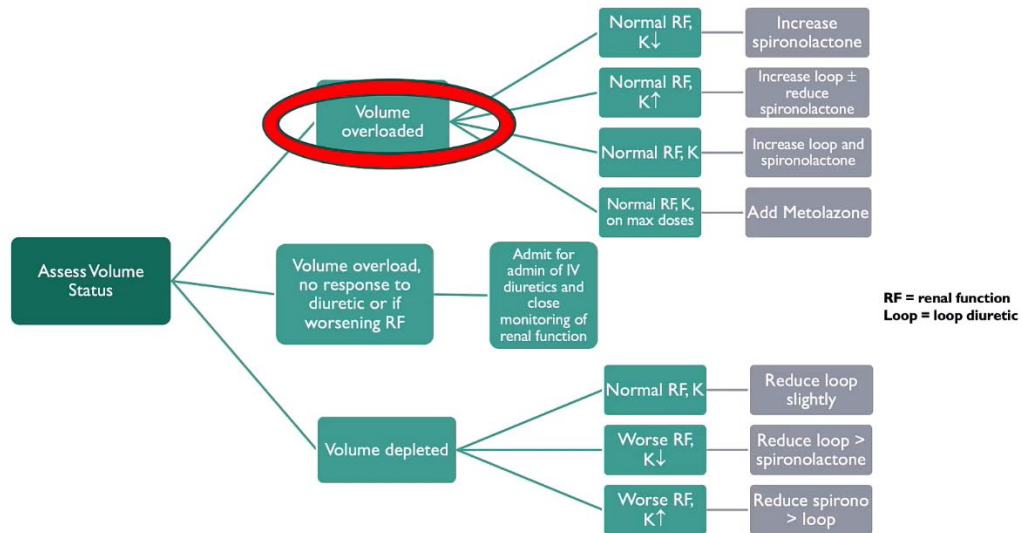


## Acute Treatment to Avoid Hospitalization: Volume Status Management

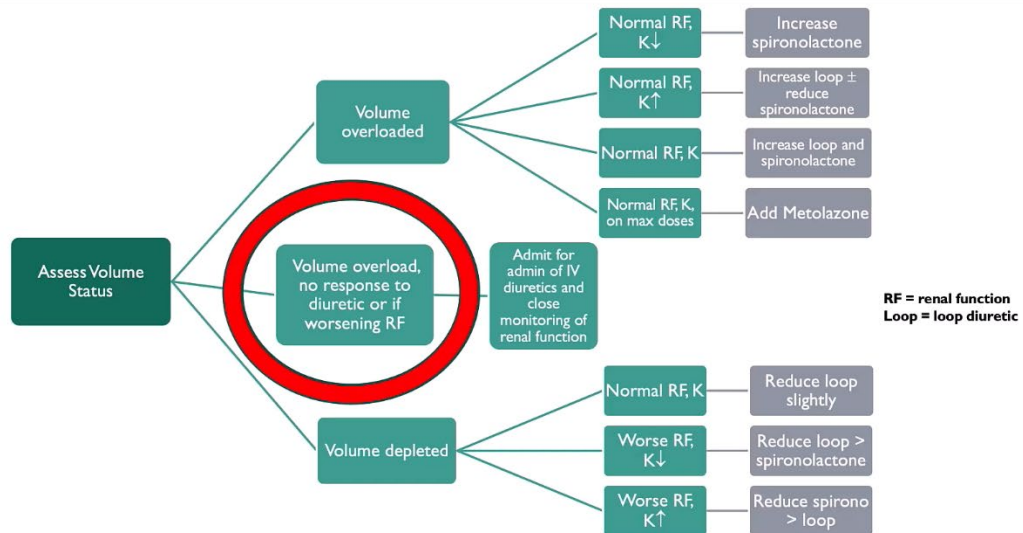




## Acute Treatment to Avoid Hospitalization: Volume Status Management

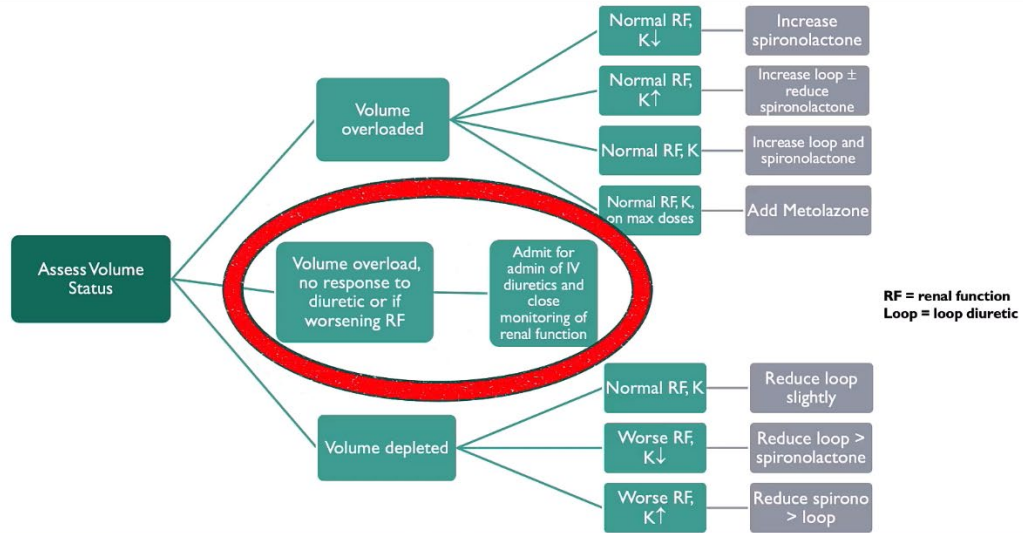


## Acute Treatment to Avoid Hospitalization: Volume Status Management

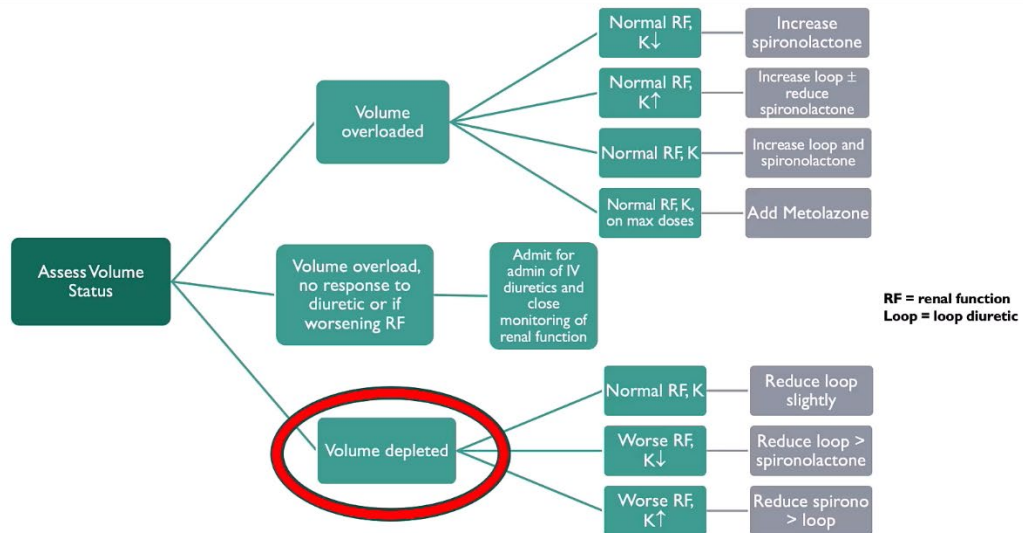




## Acute Treatment to Avoid Hospitalization: Volume Status Management



## Acute Treatment to Avoid Hospitalization: Volume Status Management





## Ambulatory Heart Failure Management

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- Recall this is an Ambulatory Care Sensitive Condition (ACSC)
  - Be available for these patients to manage outpatient to avoid ED/hospitalization
  - More frequent office visits are usually merited (4...5...6x/year?). If med change due to clinical instability, consider a 7-14 day follow-up for response (think labs – electrolytes, eGFR)
- After hospitalization, recommendations are for TCM within ONE week
  - Think Cardiac Rehab and Advance Care Plan discussion. CardioMEMS HF monitoring?
- After ED visits, CMS is measuring frequency of office visits within TWO weeks
  - Cardiology referral. Think Cardiac Rehab and Advance Care Plan discussion.
- Laboratory attention: CMET, BNP, TSH (at least initially), CBC. Watch K/eGFR.

Family Practice News. July/August 2023; p9



## References (resources folder handouts)

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<sup>1</sup>Bozkurt B, Hershberger RE, Butler J, et al. 2021 ACC/AHA key data elements and definitions for heart failure: a report of the American College of Cardiology/American Heart Association Task Force on Clinical Data Standards (Writing Committee to Develop Clinical Data Standards for Heart Failure). *Circ Cardiovasc Qual Outcomes*. 2021;14:e000102.

<sup>2</sup>Jackson SL, Tong X, King RJ, et al. National Burden of Heart Failure Events in the United States, 2006 to 2014. *Circ Heart Fail*. 2018 Dec;11(12):e004873. doi: 10.1161/CIRCHEARTFAILURE.117.004873. PMID: 30562099; PMCID: PMC6424109.

<sup>3</sup>Heidenreich PA, Albert NM, Allen LA, et al. American Heart Association Advocacy Coordinating Committee; Council on Arteriosclerosis, Thrombosis and Vascular Biology; Council on Cardiovascular Radiology and Intervention; Council on Clinical Cardiology; Council on Epidemiology and Prevention; Stroke Council. Forecasting the impact of heart failure in the United States: a policy statement from the American Heart Association. *Circ Heart Fail*. 2013 May;6(3):606-19. doi: 10.1161/HHF.0b013e318291329a. Epub 2013 Apr 24. PMID: 23616602; PMCID: PMC3908895.

<sup>4</sup>Bhatia RS, Tu JV, Lee DS, et al. Outcome of heart failure with preserved ejection fraction in a population-based study. *N Engl J Med*. 2006;355:260-9.

<sup>5</sup>2022 AHA/ACC/HFSA Clinical Practice Guideline

<sup>6</sup>Codify HCC calculator, accessed 10.2022

<sup>7</sup>American Family Physician Practice Guidelines 2023; 108(3):315-320.



## HTN References

- 1) Tsao CW, Aday AW, Almarazooq ZI, Anderson CA, Arora P, Avery CL, et al. Heart disease and stroke statistics: 2023 update: a report from the American Heart Association. *Circulation* 2023;147:e93–621.
- 2) *Hypertension*, Volume 80, Number 8. <https://doi.org/10.1161/HYPERTENSIONAHA.123.2146>
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- 4) SPRINT Research Group, Wright JT Jr, Williamson JD, Whelton PK, Snyder JK, Sink KM, et al. A randomized trial of intensive versus standard blood-pressure control. *N Engl J Med* 2015;373:2103–16.
- 5) Zhang W, Zhang S, Deng Y, Wu S, Ren J, Sun G, et al. Trial of intensive blood-pressure control in older patients with hypertension. *N Engl J Med* 2021;385:1268–79.
- 6) Thomopoulos C, Parati G, Zanchetti A. Effects of blood pressure lowering on outcome incidence in hypertension. I. Overview, meta-analyses, and meta-regression analyses of randomized trials. *J Hypertens* 2014;32:2285–95.
- 7) Sundström J, Arima H, Jackson R, Turnbull F, Rahimi K, Chalmers J, et al. Effects of blood pressure reduction in mild hypertension: a systematic review and meta-analysis. *Ann Intern Med* 2015;162:184–91.
- 8) ACCORD Study Group, Cushman WC, Evans GW, Byington RP, Goff DC Jr, Grimm RH Jr, et al. Effects of intensive blood-pressure control in type 2 diabetes mellitus. *N Engl J Med* 2010;362:1575–85.
- 9) <https://www.cms.gov/newsroom/fact-sheets/2025-medicare-advantage-and-part-d-star-ratings>
- 10) *Cardiovascular Prevention and Pharmacotherapy* 2024;6(1):17-25. DOI: <https://doi.org/10.36011/cpp.2024.6.e3>. Published online: January 22, 2024



## Thanks for viewing the MGC Value-Based Education

- There is a post test.
- Good luck!
  
- Handouts are in the Resources folder to use for managing these conditions.
  
- Nick Ulmer, MD CPC FFAFP





**RHP Insight Education Curriculum**  
2025 Curriculum



**Spartanburg Regional  
Healthcare System**

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**THE HF AND HTN CONUNDRUM:  
EVIDENCE TO MANAGE THE CONDITION**

**SRHS MGC Value-Based Arrangement Education**

Nick Ulmer MD CPC FAAFP