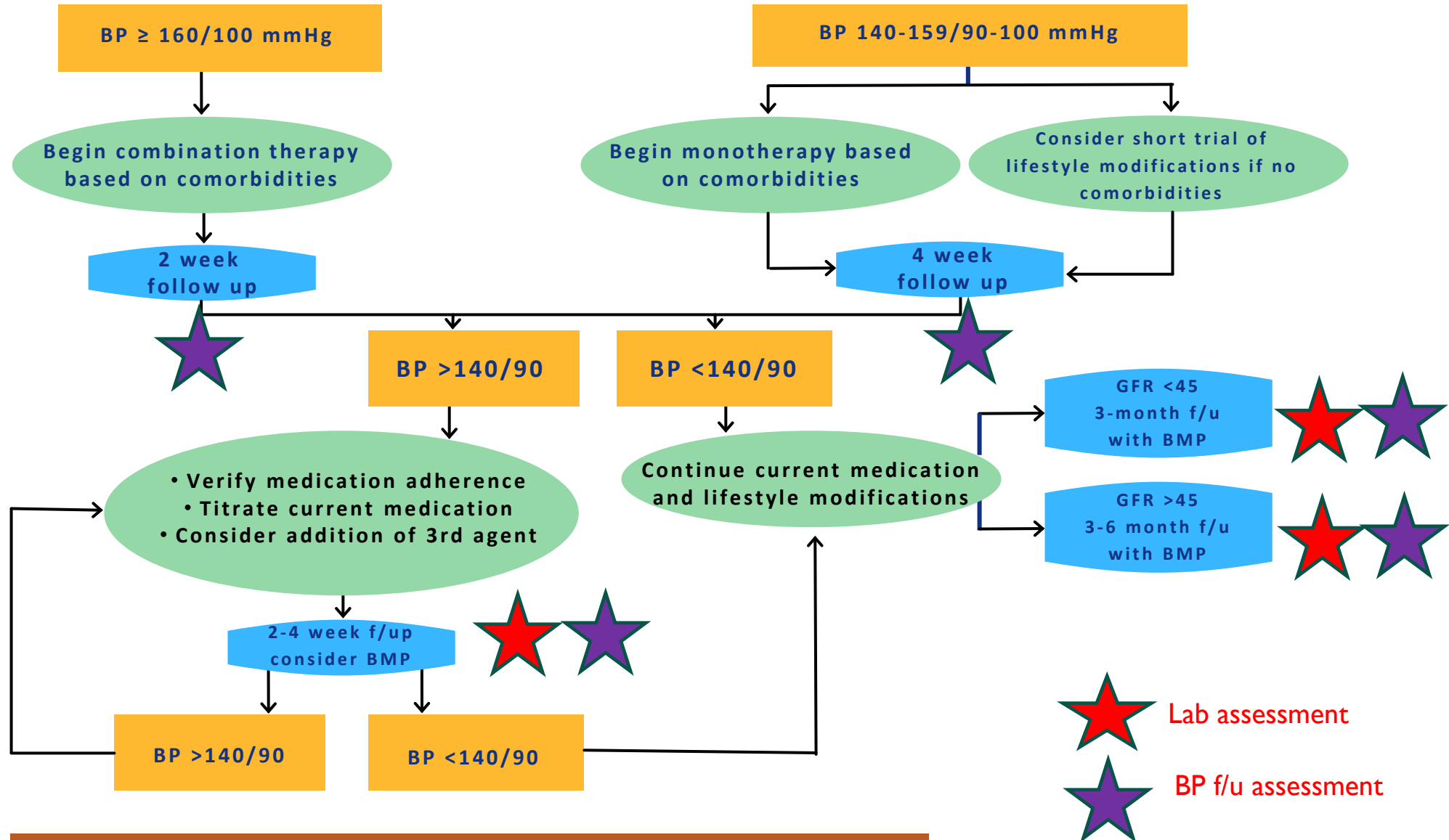


Hypertension Pharmacologic Treatment Pathway Guidelines



- If BP remains elevated with 3 medications optimized, consider addition of spironolactone for resistant hypertension
- Additionally, consider workup for secondary hypertension

Hypertension Management: 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	Telmесartan		
Quinapril	Valsartan		
Ramipril			
Trandolapril			

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)
•BMP 1-2 weeks after initiation, then minimum of q3 months -Hyperkalemia -Increase SCr/decr eGFR •Angioedema •Cough •Hypotension •Contraindicated in pregnancy	•BMP 1-2 weeks after initiation, then minimum of q3 months -Hyperkalemia -Increase SCr/decr eGFR •Angioedema •Cough •Hypotension •Contraindicated in pregnancy	•BMP 1-2 weeks after initiation/titration -Hypokalemia -Efficacy diminished if GFR <30 •Increases calcium, uric acid, glucose	•Headache •Flushing •Pedal edema •Gingival hyperplasia

Clinically Correct Coding for HTN Comorbidities

Clinical Condition	ICD-10 Code	HCC Score	RAF weight
Hypertensive Cardiomyopathy	I11.9	none	0
Hypertensive heart disease with heart failure	I11.0	226	0.360
Hypertensive chronic kidney disease (Stage 5)	I12.0	326	0.815
Hypertensive heart and CKD (IIIa/b), w HF*	I13.0	226, 328-29	0.663
Hypertensive heart and CKD (IV), w HF*	I13.0	226, 327	1.05
Hypertensive heart and CKD (V/ESRD), w/o HF	I13.11	326	0.815
Hypertensive heart and CKD (V/ESRD), w HF*	I13.2	226, 326	1.351

*HF/CKD disease interaction impact of 0.176