

RHP Insight Education Curriculum
2024 Curriculum

The Chronic Disease Primer for Primary Care: Hypertension

MGC Value-Based Arrangement Education

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Regional HealthPlus

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 2024 SRHS Primary Care Compensation Model. The Value-Based Incentive is detailed in the 2024 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 (cont.)

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, and in conjunction with RHP and the Districts Compliance Department, 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 (cont.)

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.

Objectives

- Know the clinical manifestations of hypertension in America today
- State the Stars quality measure associated with hypertension and strategies to succeed in this measure
- Know basic medications used and pertinent laboratory studies in HTN management

Hypertension: Clinical Manifestations

- Having HTN places one at risk for CAD, HF, and stroke ... “silent killer”
- 47% of all adults in the US have HTN (130/80) ... less than 1/2 have their BP under control and almost 20% have HTN and don't know it is elevated
- Last data (2003→2014) show high BP costs to the US to be \$131B per year
- AAFP (2022) new Clinical Practice Guideline on Hypertension
 - BP target of all hypertensives to below 140 systolic and 90 diastolic
 - Consider targets of below 135 systolic and 85 diastolic to reduce risk of MI
- CMS still holds 140/90 as the target and in 2024 launched new Stars clinical weights effective for 2024

<https://www.cdc.gov/bloodpressure/facts.htm#print>

<https://www.aafp.org/news/health-of-the-public/aafp-hypertension-guideline.html>

<https://millionhearts.hhs.gov/about-million-hearts/optimizing-care/undiagnosed-hypertension.html>

Where else to focus our efforts? 2024 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) **3**
 - For Lipids (Statins) **3**

*varies with ACO or Stars

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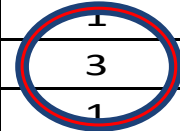
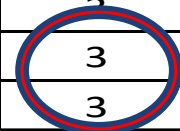
2024 Stars/ACO Quality Metrics (updated 10.2023)

Measure	Program		Star Category & Weight		Thresholds 10/17/2023	
	Stars	ACO	Part C or D?	Weight	4 Star	5 Star
Care for Older Adults - Medication Review	✓		C	1	93%	98%
Care for Older Adults - Pain Assessment	✓		C	1	91%	96%
Medication Adherence for Diabetes	✓		D	3	88%	90%
Medication Adherence for Hypertension (RAS)	✓		D	3	89%	91%
Medication Adherence for Cholesterol (Statins)	✓		D	3	89%	93%
TRC: Medication Reconciliation Post-Discharge	✓	✓	C	0.5	68%	82%
TRC: Patient Engagement After Inpatient Discharge	✓		C	0.5	64%	78%
Follow-Up After ED Visit for MCC	✓		C	1	60%	68%
Plan All-Cause Readmissions	✓		C	1	10%	8%
Osteoporosis Management in Women w/ Fracture	✓		C	1	55%	71%
Statin Use in Persons with Diabetes	✓		D	1	88%	92%
Diabetes Care - Eye Exam	✓		C	1	73%	81%
Diabetes Care - Blood Sugar Controlled	✓	✓	C	3	80%	87%
Breast Cancer Screening	✓	✓	C	1	71%	79%
Colorectal Cancer Screening	✓	✓	C	1	71%	80%
Controlling Blood Pressure	✓	✓	C	1	74%	82%
Statin Therapy for Cardiovascular Disease	✓	✓	C	1	86%	90%
Reducing the Risk of Falling		✓			↑	↑
Depression Screening		✓			↑	↑
Influenza Immunization		✓			↑	↑
Tobacco Screening and Cessation Intervention		✓			↑	↑



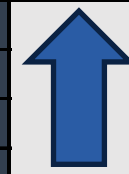
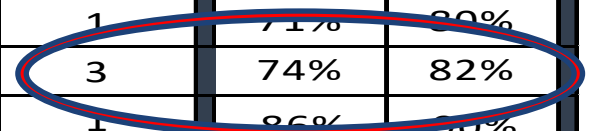
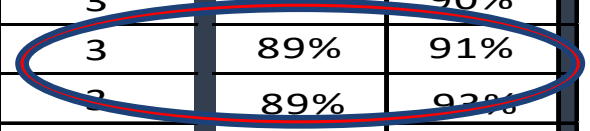
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Controlling Blood Pressure (CBP): Stars Quality

- Was a single-weighted but in 2022 became triple-weighted, remains
- The percentage of patients (18–85 years of age) who had a diagnosis of hypertension reported on an outpatient claim and blood pressure adequately controlled (<140/<90 mm Hg) as of December 31 (last BP) of the measurement year. (need CPT II code or data feed to report)
- Capture in office visit, video visit, telephone (patient reported), or e-visit
- Patient reported need to be collected with a digital device and in record (VALID BP project, JAMA 05.02.2023, of top 100, 79% upper arm not validated, 10 countries)
- 4 Star $\geq 74\%$ to $< 82\%$; 5 Star is $\geq 82\%$ ideal control (<140/<90 is goal)

Controlling Blood Pressure CPT II Codes

- 3074F SBP < 130
 - 3078F DBP < 80
- 3075F SBP 130-139
 - 3079F DBP 80-89
- 3077F SBP \geq 140
 - 3080F DBP 90

Medication Adherence Defined

- A patient taking their medications (getting the med filled) over the course of the year 80% of the time (292 days if on med 01/01/2023)
 - 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

Medication Adherence ... Problem?

- Non-adherence to maintenance medications for chronic conditions has been reported to be as high as 50% in some populations
 - Nearly 80% of Americans > 50 years of age have one or more chronic conditions
- All are guilty....
 - Non-adherence was common across all demographic, socioeconomic, regional and clinical subpopulations
- Top 3 diseases: Diabetes, Hypertension, and Hyperlipidemia (think “Stars”)

What counts in HTN Med Adherence?

- 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 medications³
- **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^{1,2}
- 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 89% compliance, 5-Star is 91+%

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

²Whelton 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.

³Sokol MC, McGuigan KA, Verbrugge RR, Epstein RS. Impact of medication adherence on hospitalization risk and healthcare cost. *Med Care*. 2005; 43(6):521-30.

Medication Non-Adherence Reasons

- Lack of understanding of benefit, of side effects.
 - ABC Project, 2012 (AlGhurar, et al., 2012) – this is #1 reason for non-adherence
 - Some diseases have “hidden” symptoms (HTN)
 - News media can inflame/pick and choose the information to share
- Cost of meds, weighing of social determinants (food, living expenses, etc.)
- Complexity of regimen (qd vs QID)
- Transportation to get meds (mail-in)

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
- Use a pill dispensary (and get a family member to fill it?)
- ASK if they have missed any doses (...or *how many* they have missed)
- Educate and RE-educate about the long-term disease effects and the medication benefit to help avoid these negative outcomes
- Take a pill, not ½, since most of those meds fall into the “low cost” category anyway
 - Some pills have altered absorption when split
- Always update the prescription at the pharmacy when changing doses
- Address the “offenders” from last year early and repeatedly in office visits (Provider/patient)

Hypertension Management STEP 1: 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)

Hypertension Management STEP 1: Correct Assessment

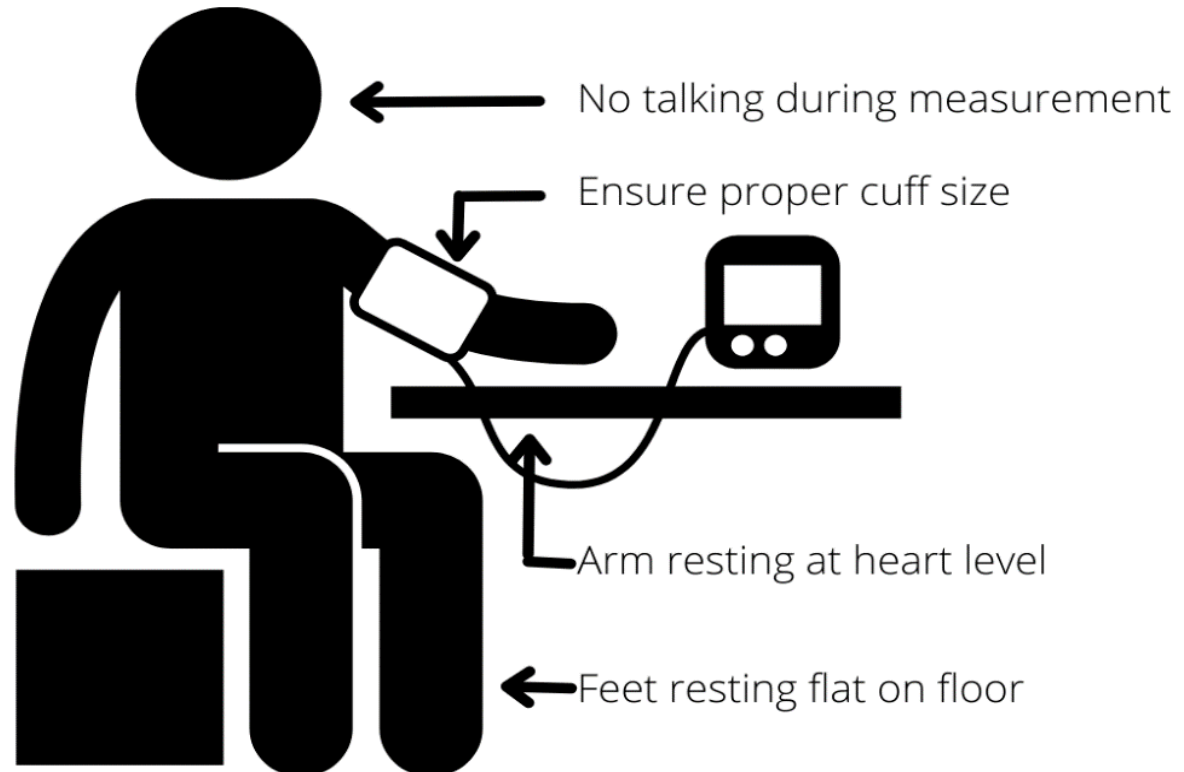
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- No smoking, exercise, coffee for 30 min prior
- Ensure patient has empty bladder



Hypertension Management STEP 1: Correct Assessment

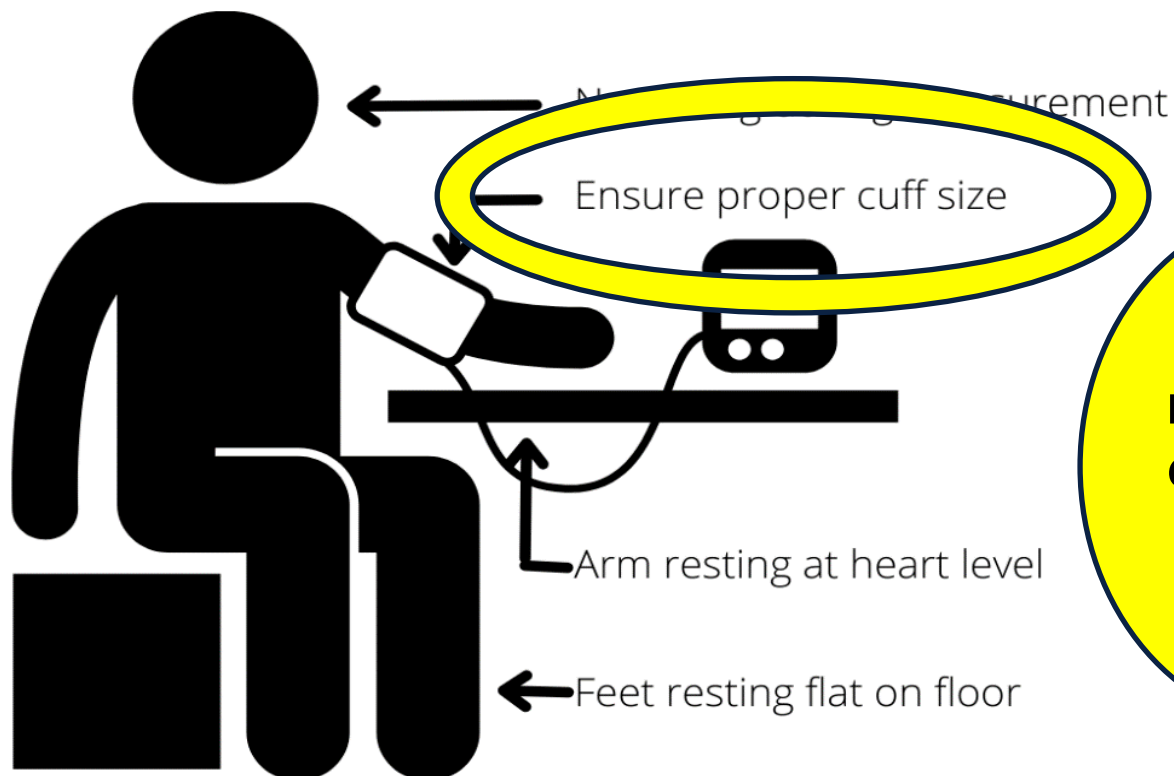
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**##1
reason for
erroneous
BP
readings**

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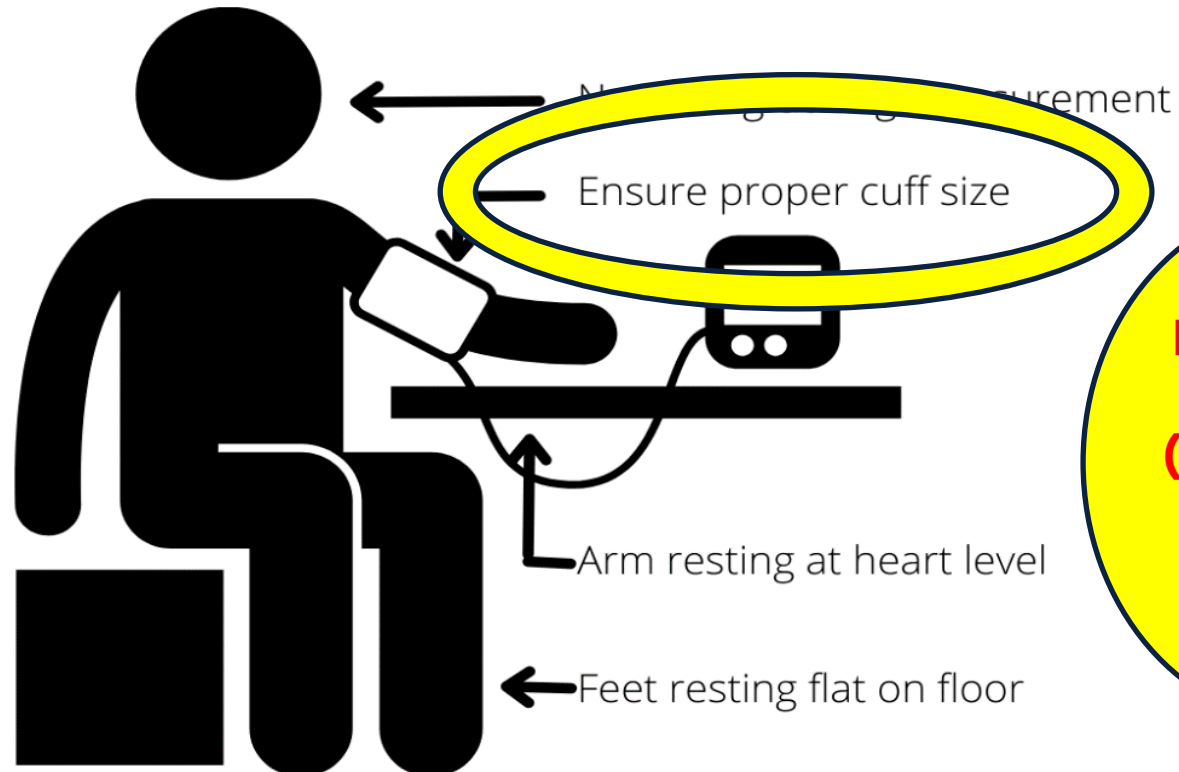
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Educate on cuff type (upper arm, not wrist, etc.) and validation

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- Full assessment should include both in office as well as at home results with a monitor validated in the office setting that is an automated (oscillometric) arm cuff
- Ambulatory blood pressure monitoring (ABPM) covers a full 24-hour period and gives a more complete assessment
 - On average ABPM value thresholds are lower for HTN diagnosis
 - <130/80 average over 24h,
 - >135/85 average for daytime
 - >120/70 for nighttime average
- 24-h ABPM and home monitoring have a stronger association with CV disease outcomes than in results from only clinical settings. ABPM has a 70% concordance with home monitoring, so it is gold standard
- White coat and Masked Hypertension – often need multiple readings, varied venues

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- **Masked Hypertension (~12%)** – increased risk of end-organ damage, cardiac events

Hypertension Management STEP 2: Lifestyle Modifications

Discuss Lifestyle Modifications

DASH Diet (8-14 mmHg)	<2 gm salt per day (2-8 mmHg)	Exercise (4-9 mmHg)	Smoking Cessation (4-9 mmHg)	Weight Loss (5-20 mmHg/10kg)	≤1 alcoholic drink/day (2-4 mmHg)	Avoid/limit NSAID use
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Smoking
Cessation
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Weight
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Avoid/limit
NSAID use

- Dietary Approaches to Stop Hypertension (DASH) Trial – the DASH Eating Plan (NHLBI)¹
 - Focus on eating **fruits, vegetables, and whole grains**
 - Prefer intake of **fat-free or low-fat dairy** products, **fish, poultry, beans, nuts, and vegetable oils**
 - **Limits** on foods that are **high in saturated fatty acids** (like fatty meats, full dairy products, and tropical oils like coconut, palm kernel and palm oils)
 - **Limits on sugar-sweetened beverages and snacks**
 - BP Benefit seen within two weeks in initial trial
- Subsequent studies confirmed, noting added benefit with in-office counseling²
 - DASH, Dash-Sodium, and PREMIER

¹N Engl J Med 1997; 336:1117–1124

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- Dietary Na⁺ reduction → reduction in SBP of 2-8 mm Hg.
 - Optimal goal for sodium consumption is ≤1500 mg daily (ave. American 3400 mg daily)
- Enhanced rather than limited intake of potassium is associated with improvements in blood pressure.

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Lifestyle Modifications: Physical Activity Key Guidelines

Adults

- Move more and sit less throughout the day. Some physical activity is better than none.
- For substantial health benefits, do at least 2.5h- 5h/week of moderate-intensity, or 75 min – 2.5h/week of vigorous-intensity aerobic physical activity (or an equivalent combination of both)
- Do muscle-strengthening activities of moderate or greater intensity and that involve all major muscle groups on 2 or more days a week

Older Adults

- The key guidelines for adults also apply to older adults.
- In addition, older adults should do multicomponent physical activity that includes balance training
- If unable to do the recommended moderate-intensity aerobic activity, then be as physically active as their abilities and conditions allow.

Older Adults with Chronic Conditions/Disabilities

- If unable to meet the above key guidelines, they should engage in regular physical activity according to their abilities and should avoid inactivity.

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Aerobic exercise reduces BP in hypertensive individuals and reduces insulin resistance with the beneficial impact being independent of weight loss.

Older Adults with Chronic Conditions/Disabilities

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Behavior Change: The Rx for Sustainability

- Adherence to lifestyle modifications is challenging
 - Providers need to proactively implement behavior-change strategies to promote adherence
- Strategies need to be patient-related
 - Patient centered to get their buy-in. Need to have trust
 - Empathy with patient situation and listen actively
 - Encourage food intake and physical activity log. Encourage the partnership
- Strategies need to be program-related
 - Simple, convenient, enjoyable (shared), realistic and attainable, home support
 - Lead by example, share

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1 alcoholic
drink/day
(2-4 mmHg)

Avoid/limit
NSAID use

BP Goals Vary....

- ADA (2024):
 - DM with estimated 10-year ASCVD risk < 15%, target is <140/<90
 - With known atherosclerotic cardiovascular disease or if an estimated 10-year ASCVD risk > 15%, the target BP is <130/80 mm Hg if it can be safely achieved.
- The American College of Cardiology/American Heart Association (2017)
 - For DM, known CVD, or 10 year ASCVD risk >10%, a lower target BP goal of <130/80 mm Hg
 - For adults ≥65, target systolic BP <130.
- The ACP still says <150 systolic for adults ≥60, while the AAFP went to target lower than 140/90 (2022)
- CMS/Medicare Advantage: <140/<90
- **Individual patient decision with physician/NPP with close longitudinal follow up. Lower is better.**

Standards of Medical Care in Diabetes—2021. Diabetes Care 2021;44(Suppl 1):S125-S150.

Standards of Medical Care in Diabetes—2022 Abridged for primary care providers. Clin Diabetes 2022;40(1):10-38

N Engl J Med 2015;373(22):2103-2116.

Hypertension 2018;71(6):e13-e115

Ann Intern Med 2016;164(10):692-693.

Ann Intern Med 2017;166(6):430-437.

Hypertension Management: Step 3: Medication Management

Drug selection Pearls

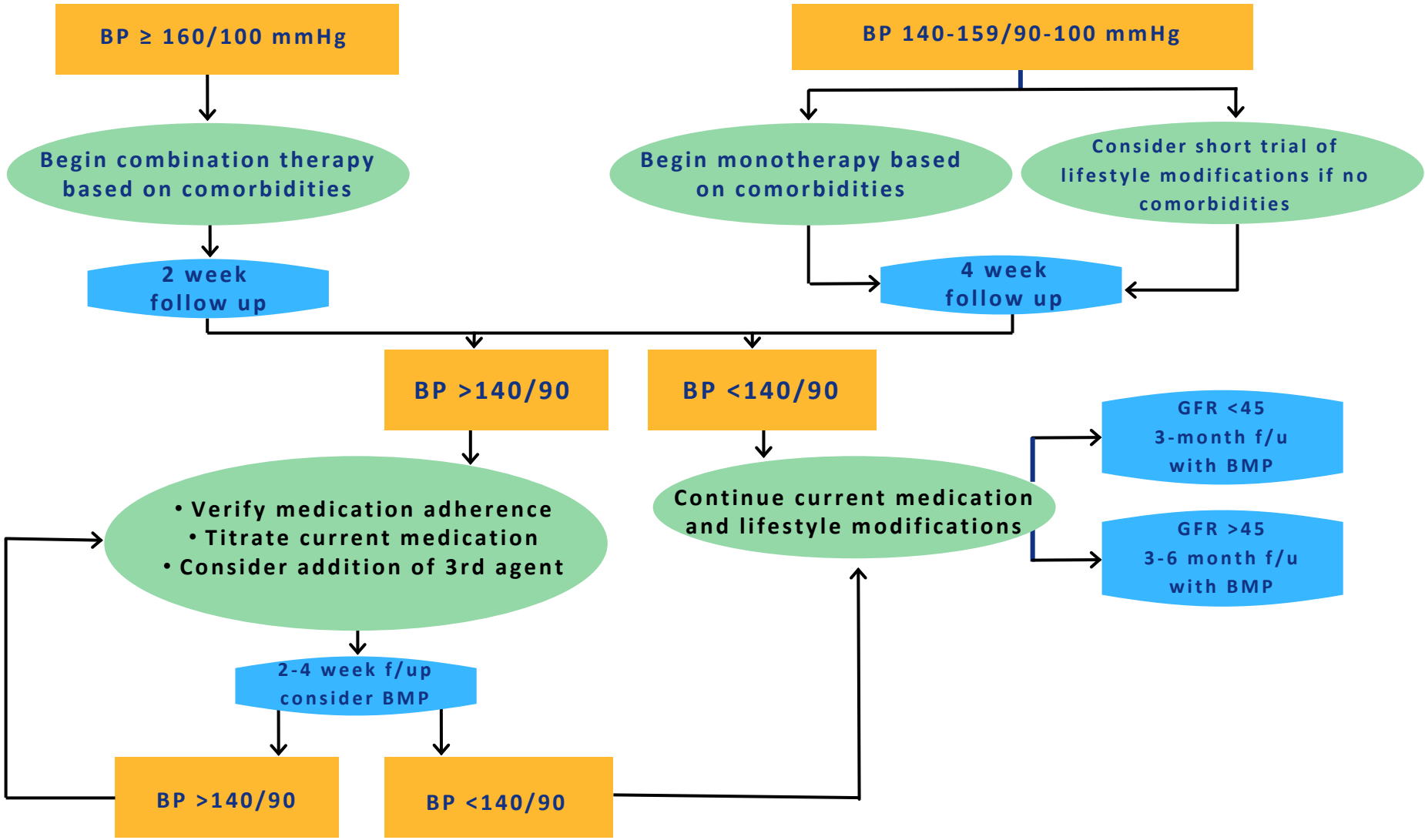
- ACE/ARB, thiazide/thiazide-like diuretic or DHP-CCB are all reasonable first line therapies
 - With DM, ASCVD, CKD give preference to ACE or ARB as first line (do not use ACE/ARB together or an ARB with the DRI aliskiren). LVH reduction seen with these as well
 - Role of beta blockers in HTN is limited 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			

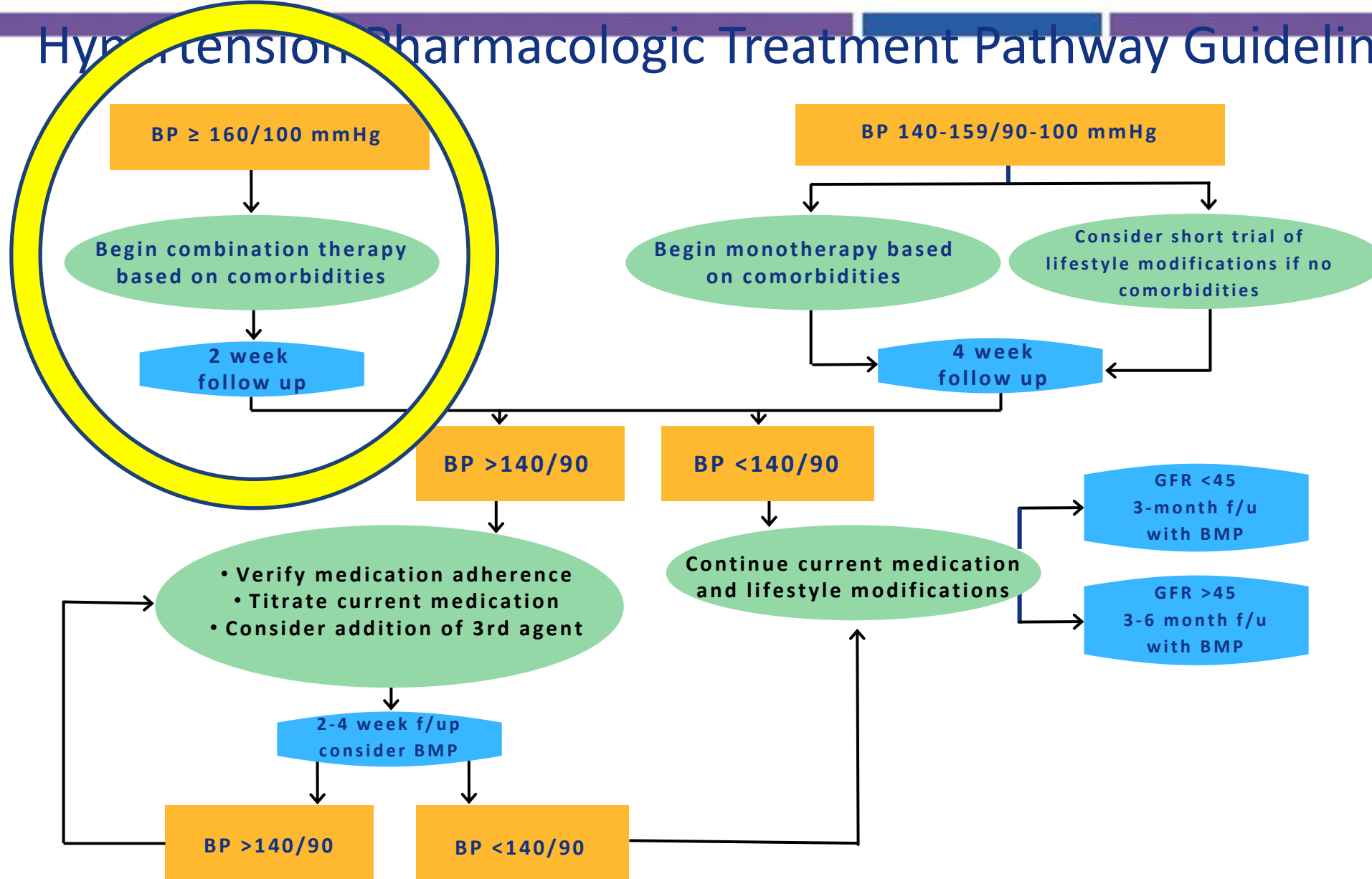
Journal of Clinical Hypertension. 2014;16:14-2
 Hypertension. 2015;65:1372-1407
 Diabetes Care 2017;40(suppl 1):S75-87
 Kidney Int Suppl 2012;2
 JAMA. 2014;311(5):507-20.

Hypertension Pharmacologic Treatment Pathway Guidelines



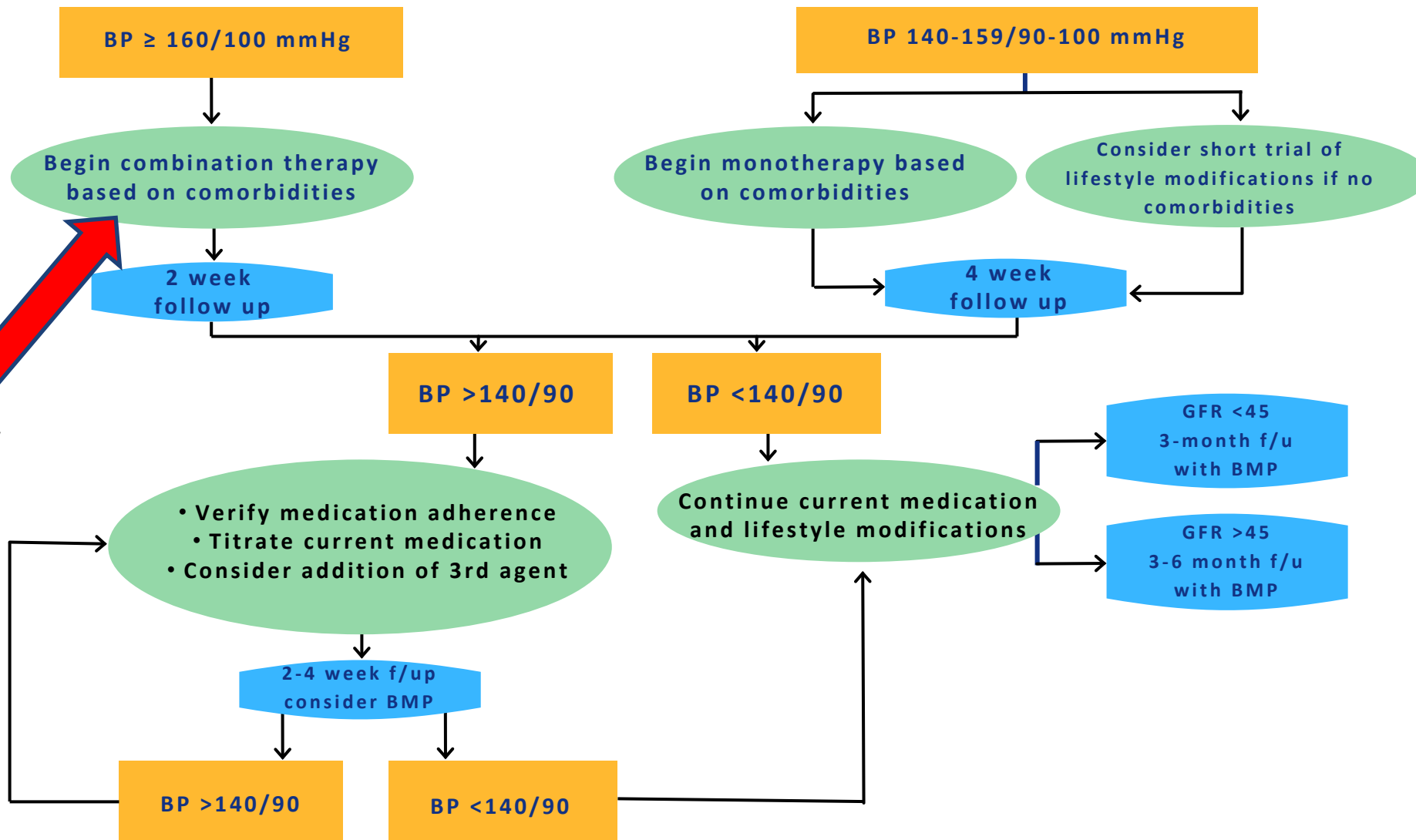
• If BP remains elevated with 3 medications optimized, consider addition of spironolactone for resistant hypertension
 • Additionally, consider workup for secondary hypertension

Hypertension Pharmacologic Treatment Pathway Guidelines



• If BP remains elevated with 3 medications optimized, consider addition of spironolactone for resistant hypertension
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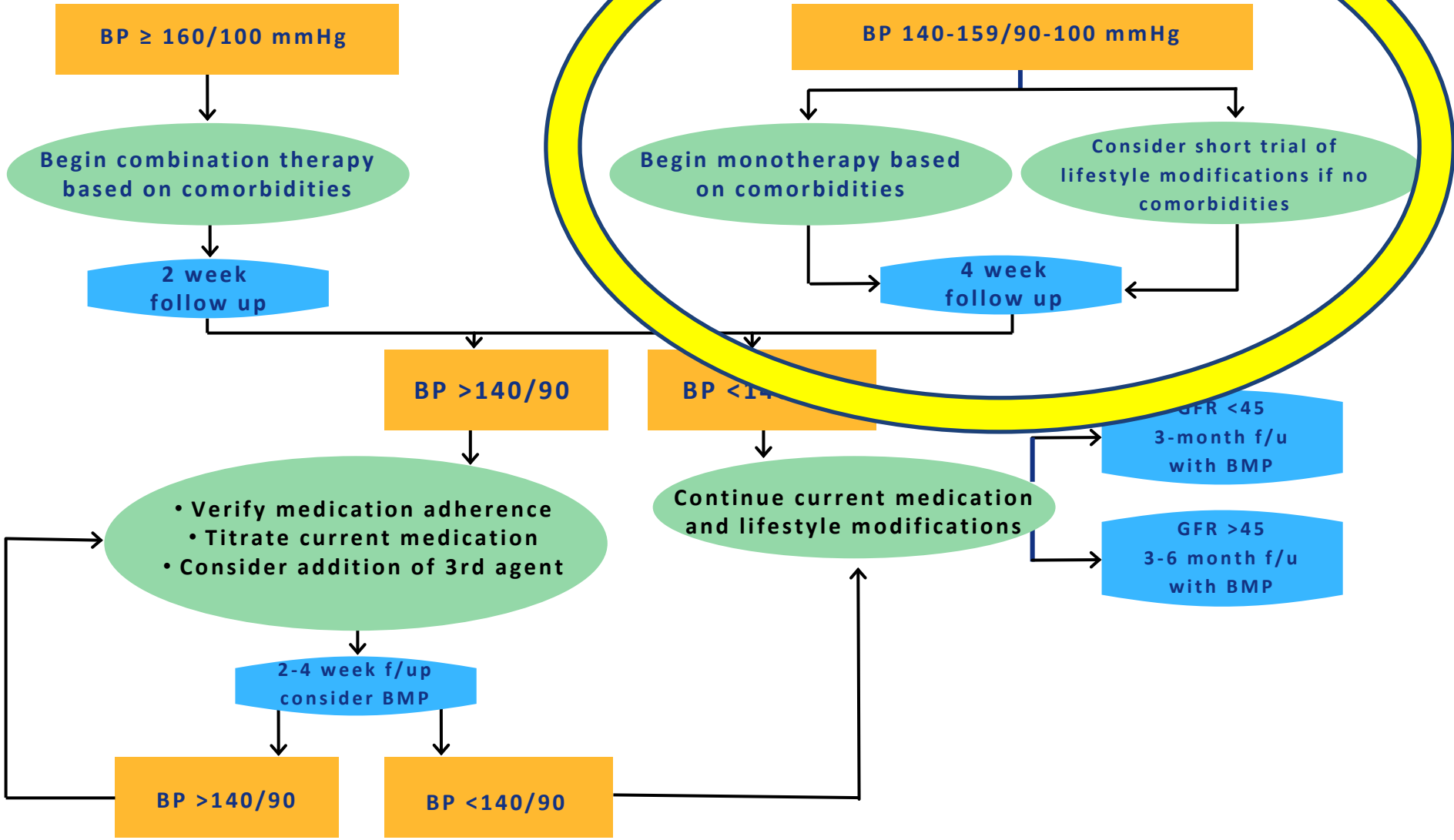
Hypertension Pharmacologic Treatment Pathway Guidelines



2017 ACC/AHA HTN Guidelines recommend *two* agents if $20+SBP/10+DBP$ over baseline and *fixed-dose* has better adherence

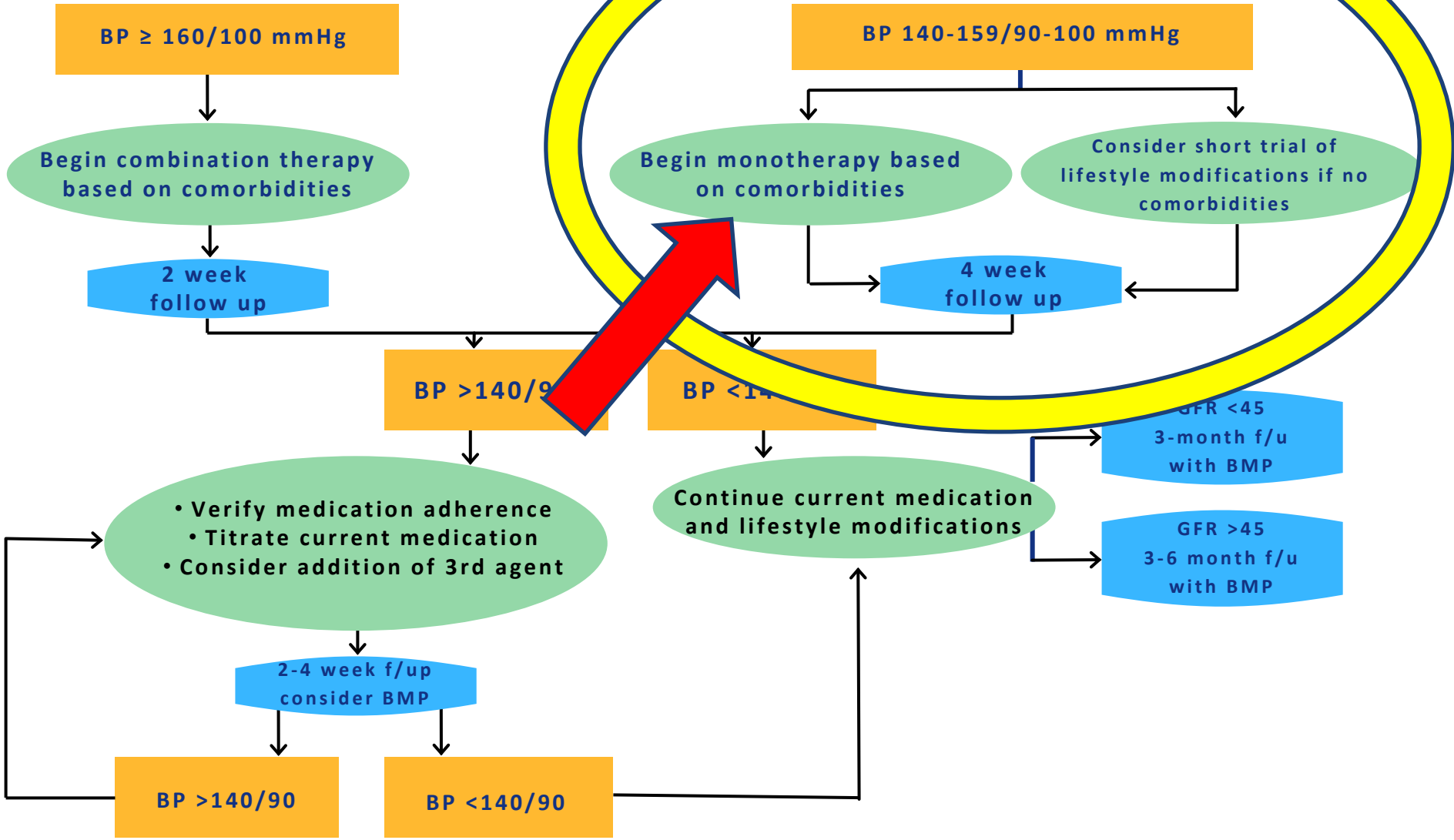
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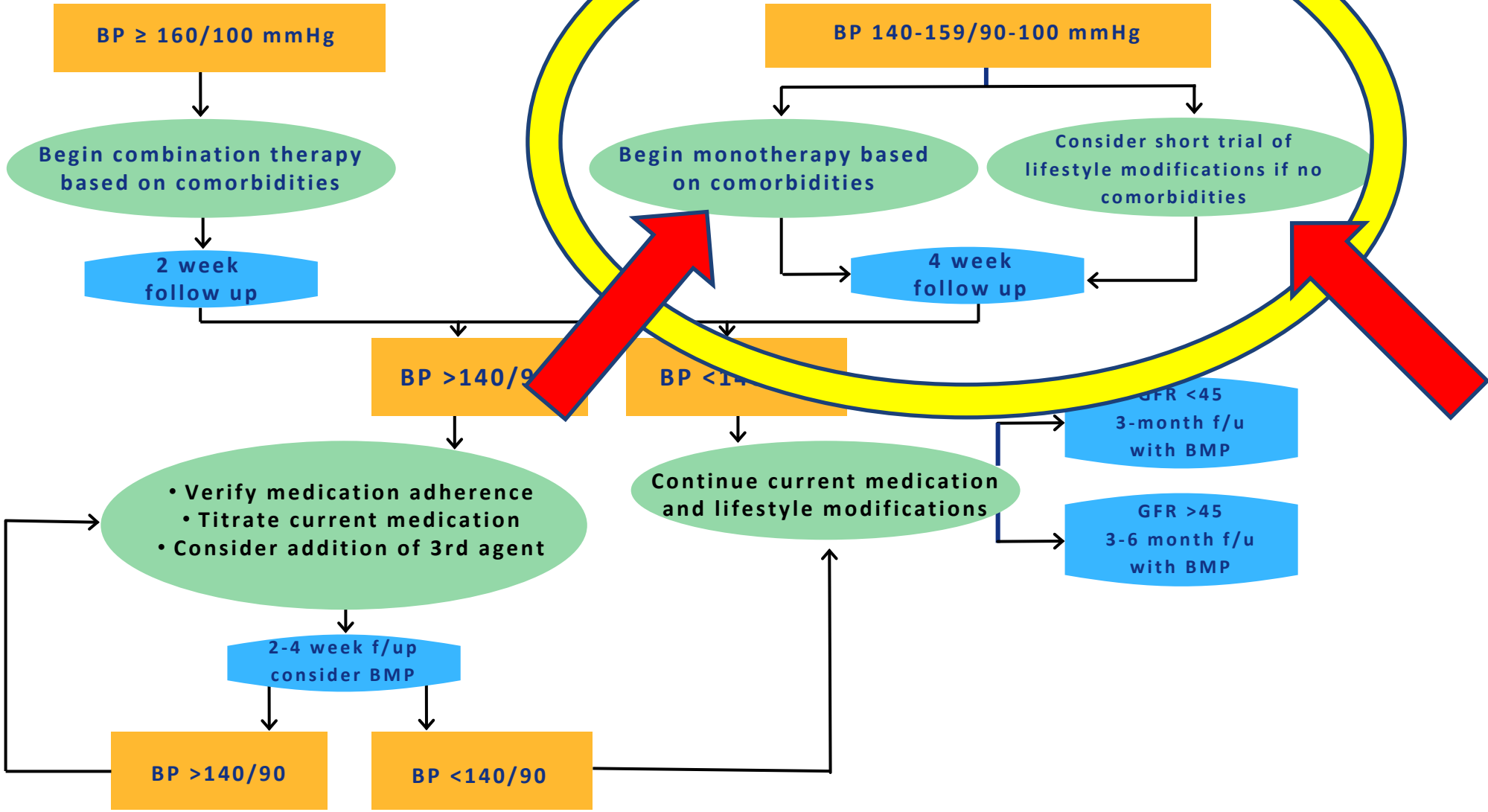
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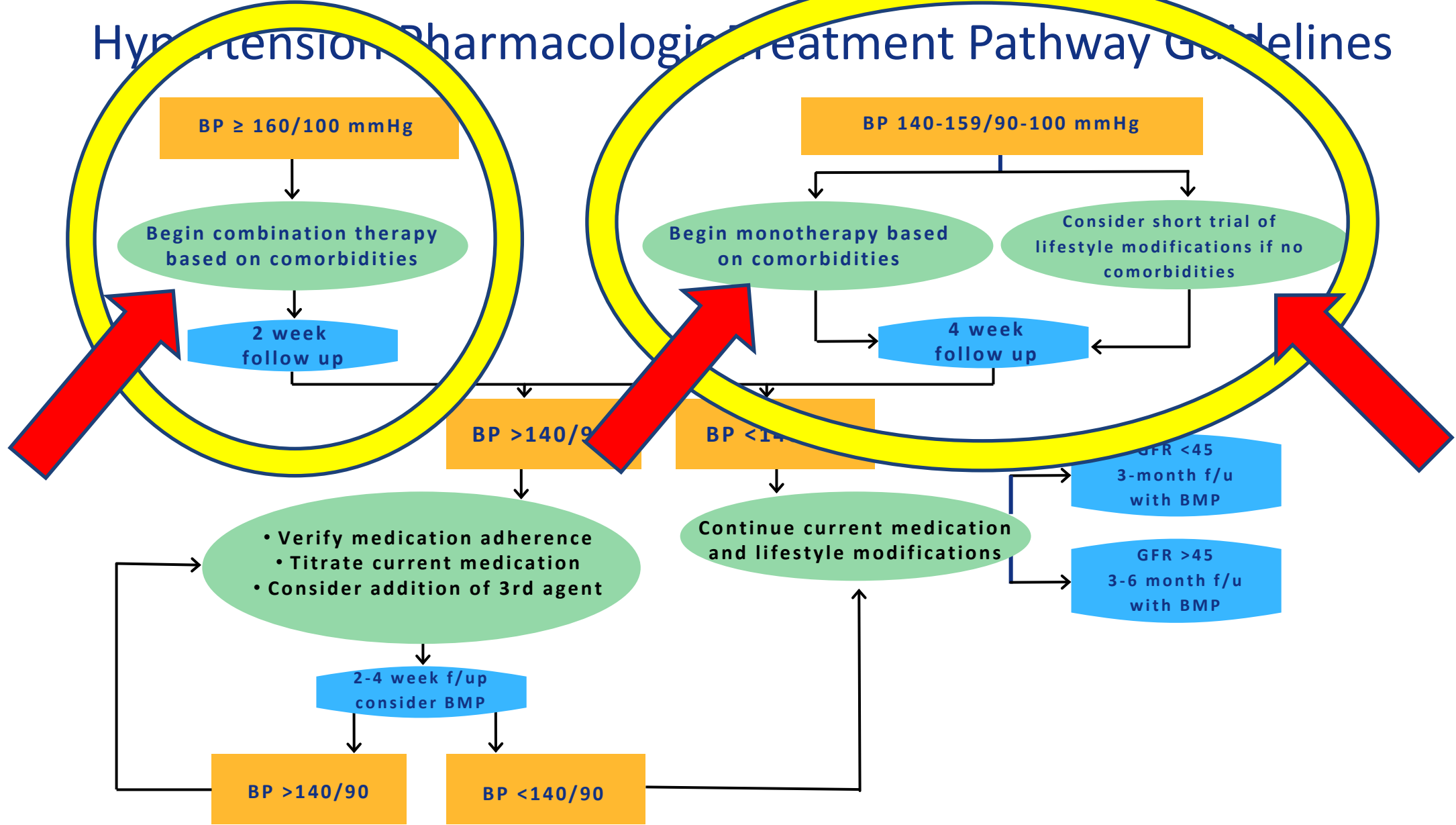
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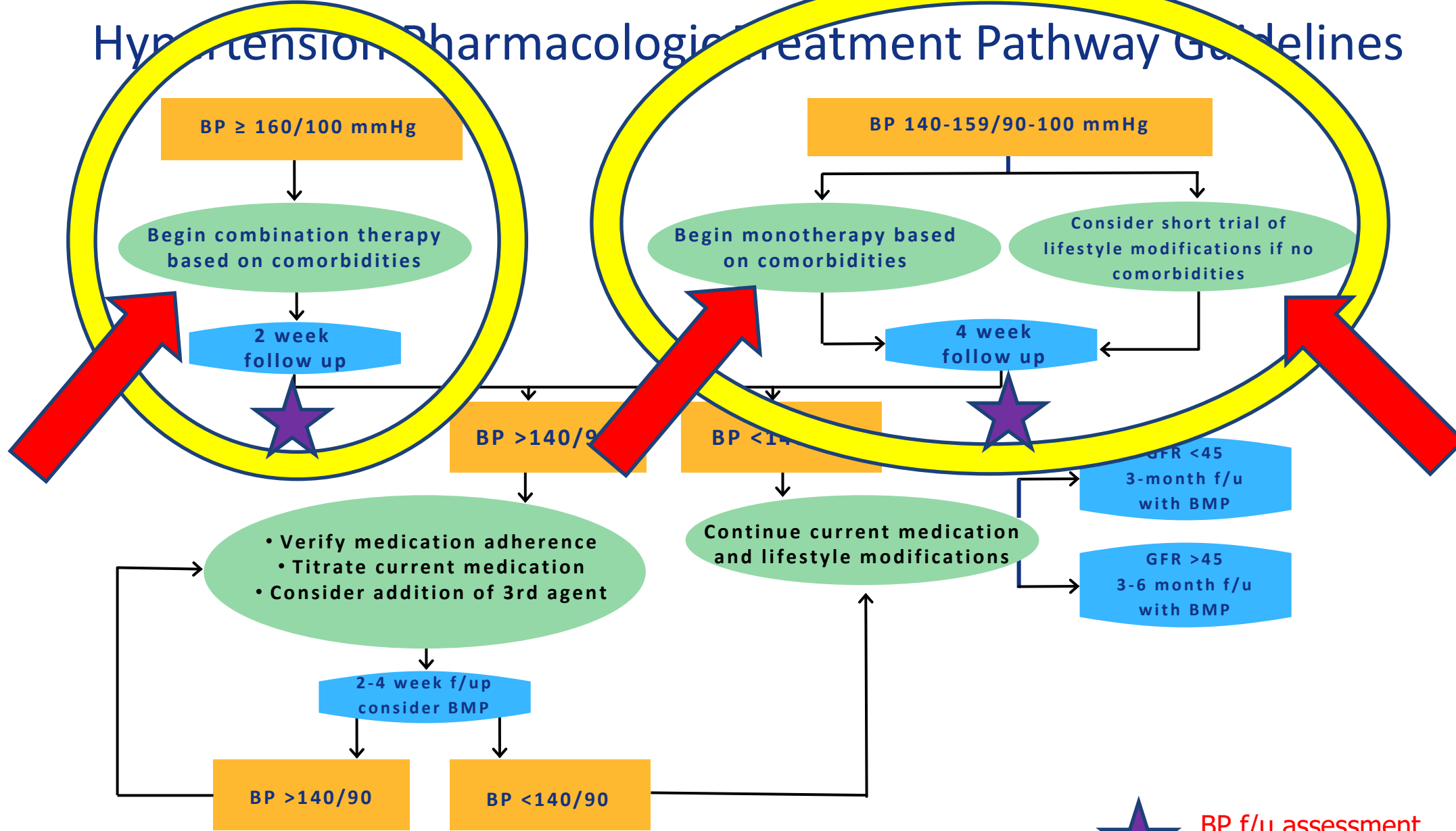
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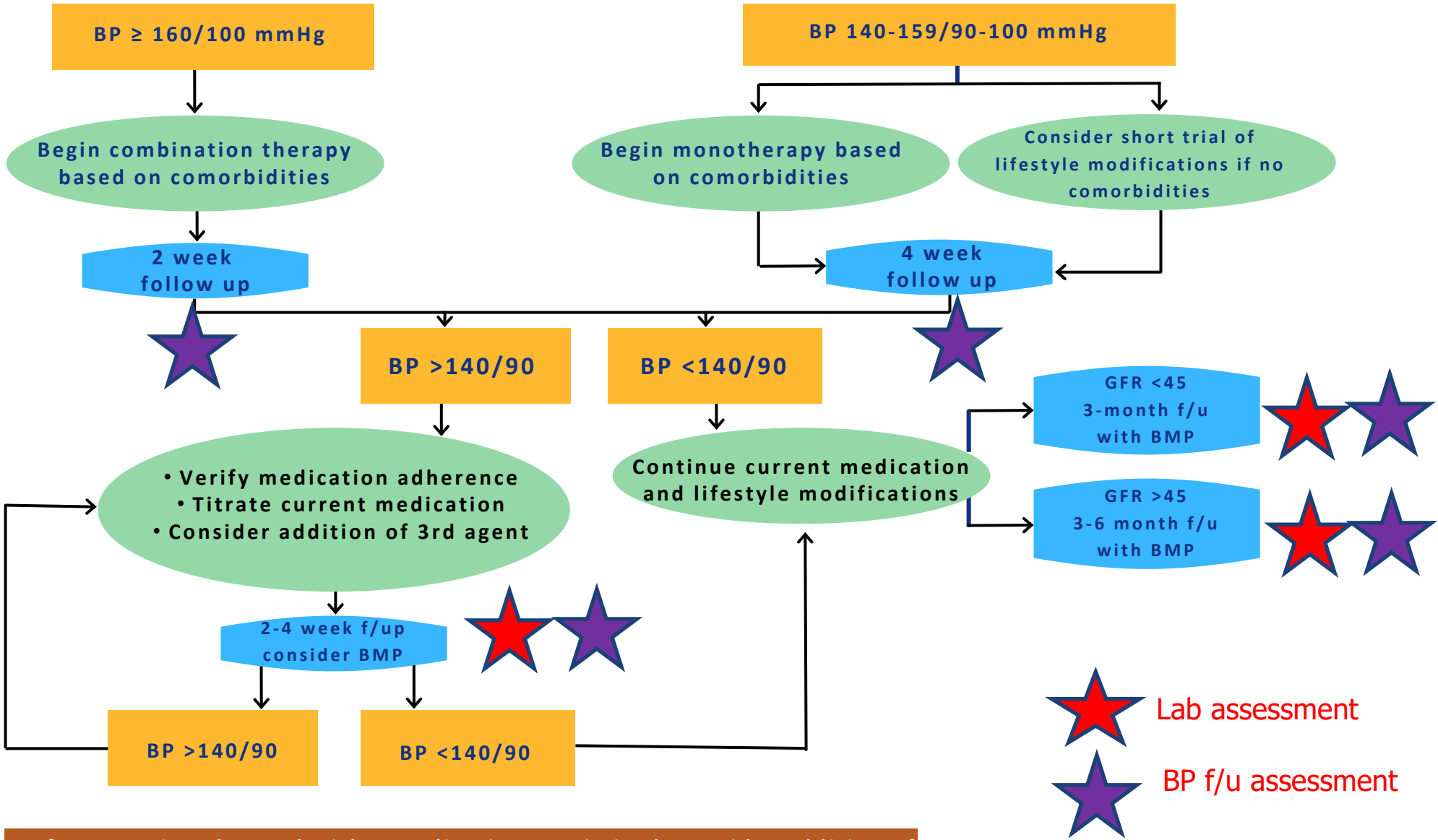
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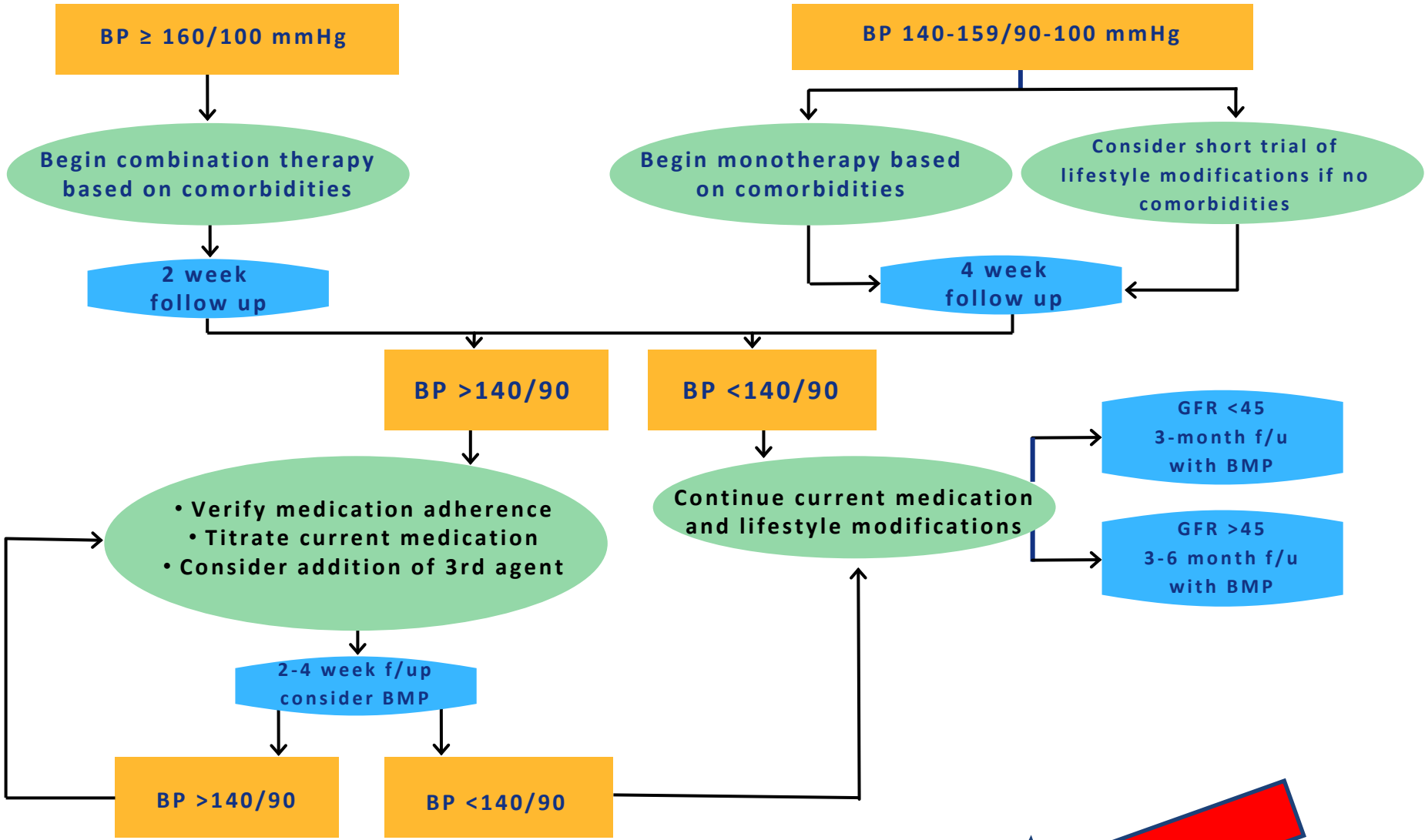
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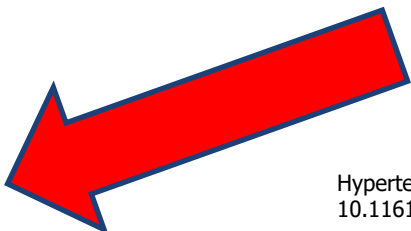
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★ Lab assessment
 ★ BP f/u assessment

Hypertension Pharmacologic Treatment Pathway Guidelines



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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

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"> •BMP 1-2 weeks after initiation, then minimum of q3 months -Hyperkalemia -Increase SCr/decr eGFR •Angioedema •Cough •Hypotension •Contraindicated in pregnancy 	<ul style="list-style-type: none"> •BMP 1-2 weeks after initiation, then minimum of q3 months -Hyperkalemia -Increase SCr/decr eGFR •Angioedema •Cough •Hypotension •Contraindicated in pregnancy 	<ul style="list-style-type: none"> •BMP 1-2 weeks after initiation/titration -Hypokalemia -Efficacy diminished if GFR <30 •Increases calcium, uric acid, glucose 	<ul style="list-style-type: none"> •Headache •Flushing •Pedal edema (better with ACE/ARB combo) •Gingival hyperplasia

Hypertension Management: Resistant Hypertension

- DRUG OF CHOICE:
 - Aldosterone antagonist: Spironolactone or Eplerenone
 - ASCOT Trial:
 - Mean 22/10 mmHg reduction with spironolactone as 4th 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

Step 4: Correctly Coding the Condition

- Basic hypertension ICD-10 code is I10, but there no risk score is associated with uncomplicated hypertension
- CMS recognizes disease interaction between hypertension, chronic kidney disease and heart failure and attributes risk factors for these interactions. Demonstrate the severity of illnesses you are managing by capturing all conditions that apply to your patient.
- *Always consider the causal relationship between HTN & Chronic Kidney Disease, HTN & Heart Failure, or a combination of all three.*
 - Code first the hypertensive CKD, hypertensive heart failure, or the hypertensive heart failure with CKD then the stage of CKD and/or heart failure acuity

Other Comorbid States to Hypertension?

Any associated conditions like

-ischemic heart disease?
-cardiomyopathy?
-cardiac arrhythmias?
-stroke late effects (hemiplegia/monoplegia)?
-heart assisted devices?

Clinically Correct Coding for HTN Comorbidities

Clinical Condition	ICD-10 Code	HCC Score	RAF weight
Hypertensive Cardiomyopathy	I 11.9	none	0
Hypertensive heart disease with heart failure	I 11.0	226	0.360
Hypertensive chronic kidney disease (Stage 5)	I 12.0	326	0.815
Hypertensive heart and CKD (IIIa/b), w HF*	I 13.0	226, 328-29	0.663
Hypertensive heart and CKD (IV), w HF*	I 13.0	226, 327	1.05
Hypertensive heart and CKD (V/ESRD), w/o HF	I 13.11	326	0.815
Hypertensive heart and CKD (V/ESRD), w HF*	I 13.2	226, 326	1.351

*HF/CKD disease interaction impact of 0.176

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Thanks for viewing the Chronic Disease Primer on HTN

- There is a post test.
- Good luck!

- Handouts are in the Resources folder to use for managing this condition.

- Nick Ulmer, MD CPC FAAFP
- EUlmerMD@srhs.com

Practice Enhancement Through
Clinically Correct Documentation and Coding
2024 Curriculum

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