

European Society of Hypertension (ESH) and
European Society of Cardiology (ESC)
2018 Hypertension Guidelines Highlights

The new 2018 European guidelines for the treatment of high blood pressure have been jointly developed by the European Society of Cardiology (ESC) and the European Society of Hypertension (ESH). The guidelines provide recommendations for doctors about how to diagnose high blood pressure, evaluate risk, and when and how to treat high blood pressure along with reducing risk of complications, with the help of both lifestyle advice & medications.



ESC
European Society
of Cardiology



**European
Society of
Hypertension**

How the recent 2018 ESH/ESC Guidelines differ from the American Guidelines for hypertension ACC/AHA 2017?



BP Category	ESH/ ESC (2018)		BP Category	ACC/ AHA (2017)	
	Systolic BP (mm Hg)	Diastolic BP (mm Hg)		Systolic BP (mm Hg)	Diastolic BP (mm Hg)
Optimal	<120	and <80	Normal	<120	and <80
Normal	120-129	and/or 80-84	Elevated	120-129	and <80
High Normal	130-139	and/or 85-89	Stage 1	130-139	or 80-89
Grade 1 Hypertension	140-159	and/or 90-99	Stage 2	≥140	or ≥90
Grade 2 Hypertension	160-179	and/or 100-109			
Grade 3 Hypertension	≥180	and/or ≥110			
Isolated Systolic Hypertension	≥140	and <90			

Definitions of Hypertension according to Office, Ambulatory and Home BP levels as per 2018 ESH/ESC Hypertension Guidelines

Category	Systolic (mm Hg)		Diastolic (mm Hg)
Office BP ^a	≥ 140	and/or	≥ 90
Ambulatory BP ^b			
Daytime (or awake) mean	≥ 135	and/or	≥ 85
Night-time(or asleep) mean	≥ 120	and/or	≥ 70
24-h mean	≥ 130	and/or	≥ 80
Home BP ^c mean	≥ 135	and/or	≥ 85

a: Blood Pressure measurement in primary care setting.

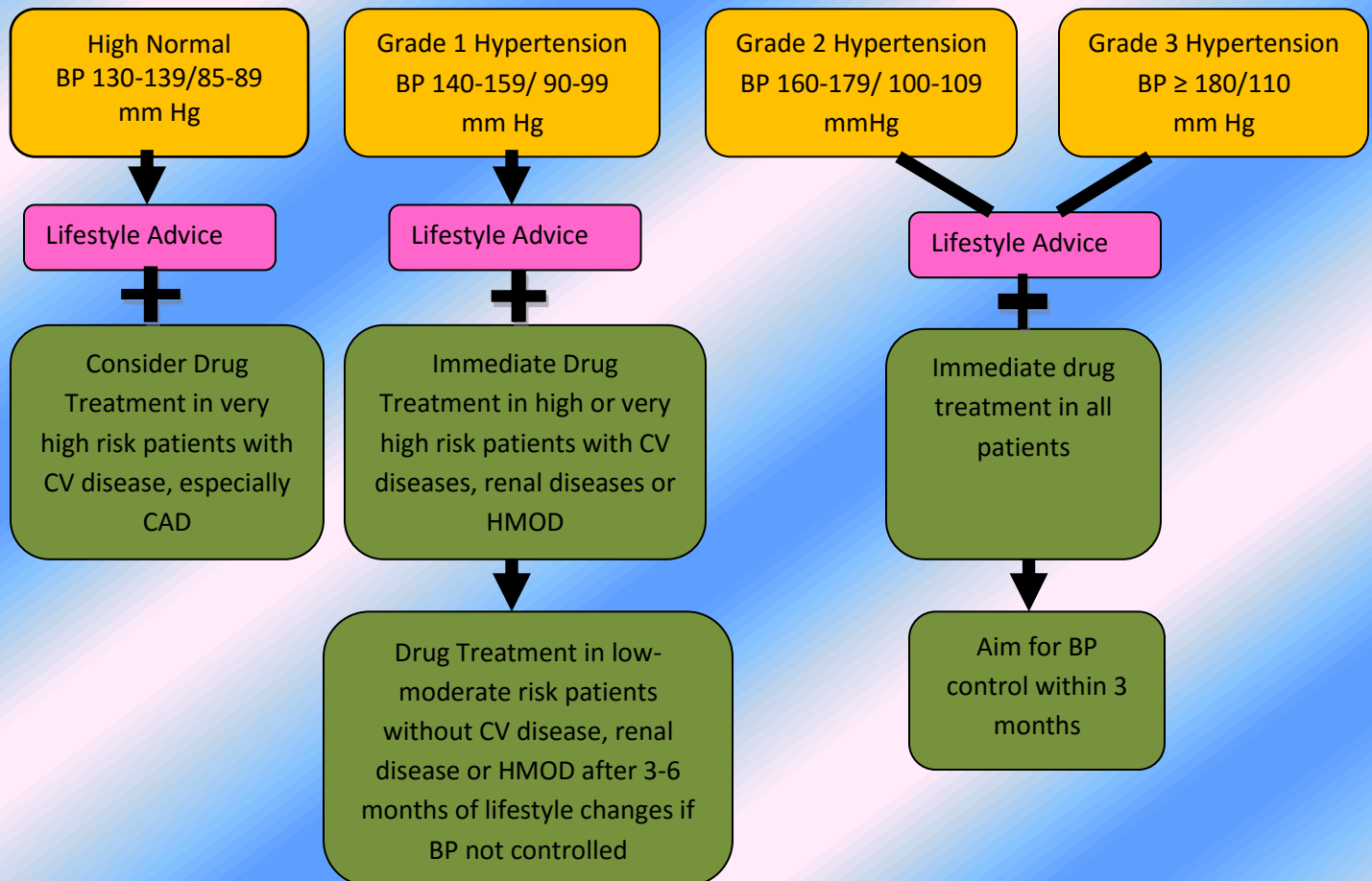
b: Blood Pressure measurement at regular intervals. It is able to reduce white coat hypertension.

c: Self Measurement of Blood Pressure at home.

Office BP Treatment Targets

Age group	Office Systolic BP Treatment Target ranges (mm Hg)					Diastolic BP treatment target (mm Hg)
	Hypertension	+ Diabetes	+ CKD	+ CAD	+ Stroke/TIA	
18-65 years	130 or lower if tolerated Not < 120		<140 to 130 if tolerated	130 or lower if tolerated Not < 120		< 80 to 70
65-79 years	< 140 to 120 if tolerated					
≥ 80 years						

Treatment Recommendations— Lifestyle changes and Medication at different BP levels.



CAD: Coronary Artery Disease, CVD: Cardio-vascular disease, HMOD: Hypertension mediated organ damage

Lifestyle Changes as per ESC/ESH Guidelines

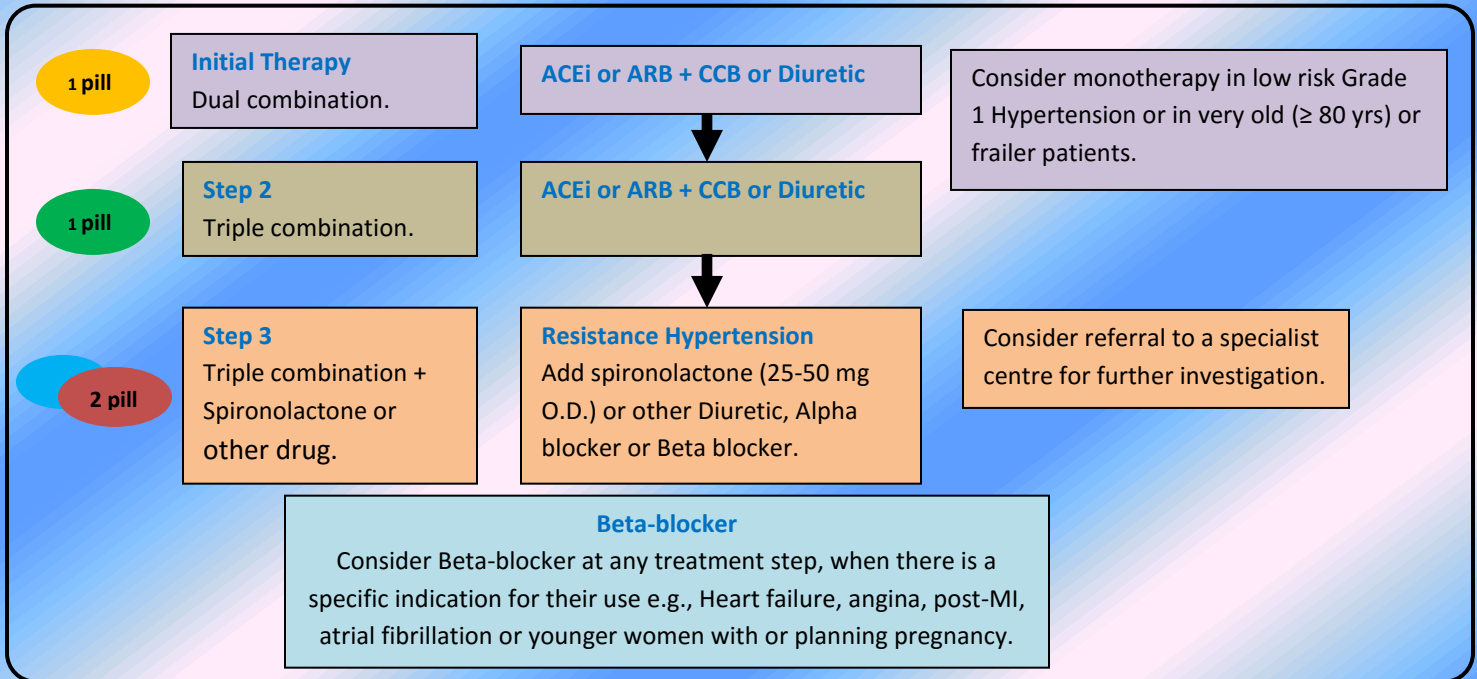
- Healthy lifestyle choices can prevent or delay the onset of Hypertension and can reduce cardio-vascular risk. Effective lifestyle changes may be sufficient to delay or prevent the need for drug therapy in patients with Grade 1 Hypertension.
- They can also augment the effects of BP-lowering therapy, but they should never delay the initiation of drug therapy in patients with HMOD or at a high level of CV risk.
- A major drawback of lifestyle modification is the poor persistence over time.

The Healthy Lifestyle Choices



Drug Treatment Strategy for Hypertension and other co-morbidities.

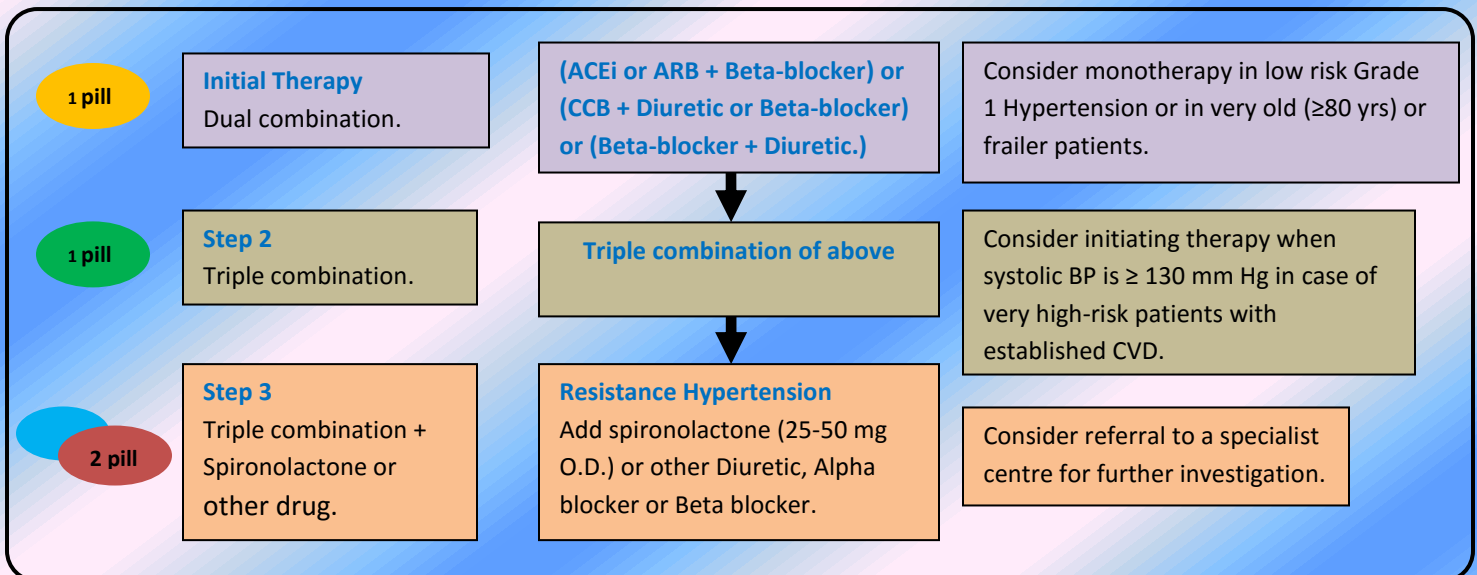
Drug Treatment for Uncomplicated Hypertension



The core algorithm is also appropriate for most patients with HMOD, CV diseases, diabetes or PAD.

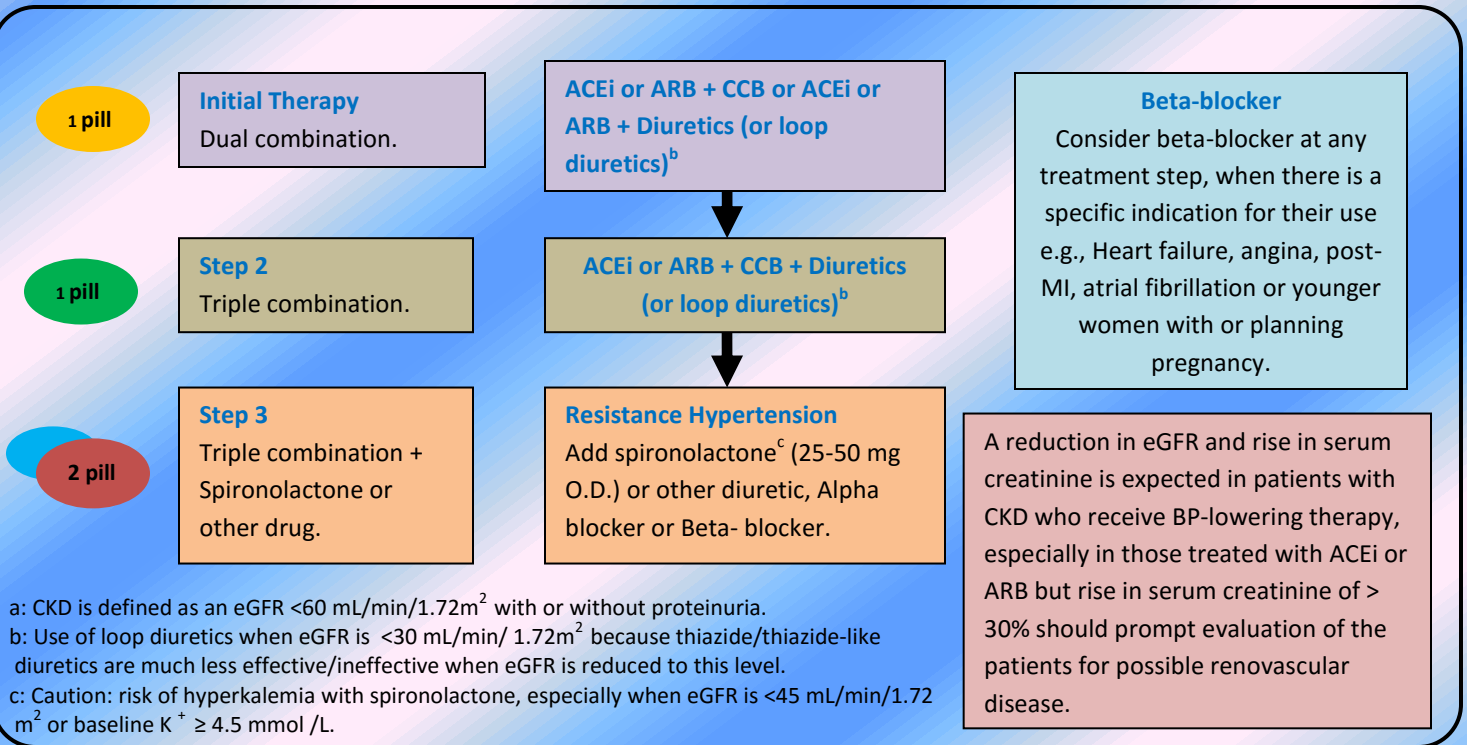
ACEi: Angiotensin-converting enzyme inhibitor, ARB: Angiotensin receptor blocker, CCB: Calcium-channel blocker, HMOD: Hypertension-mediated organ damage, O.D.: Omni die (every day), PAD: Peripheral artery disease.

Drug Treatment for Hypertension with CAD



ACEi: Angiotensin-converting enzyme inhibitor, ARB: Angiotensin receptor blocker, CCB: Calcium-channel blocker, CVD: Cardiovascular diseases, O.D.: Omni die (every day).

Drug Treatment for Hypertension and CKD^a



So, what are the new concepts in ESC/ESH Hypertension Guidelines 2018?

BP Measurement

-Wider use of out-of-office BP measurements like Ambulatory BP and Home BP as an option to confirm the diagnosis of hypertension.

Less conservative treatment of BP in old and very old patients

- Lower BP thresholds (140/90 mm Hg for old, 65-79 years) (160/90 mm Hg for very old, 80+ years)
- Emphasis on consideration of biological rather than chronological age – recognizing the importance of fragility, independence, and the tolerability of treatment.

A single pill treatment strategy to improve BP control

- Preferred use of two-drug combination therapy for the initial treatment of hypertension for most patients.
- A single pill treatment strategy for hypertension with the preferred use of Single Pill Combination therapy for most patients.
- Simplified drug-treatment algorithm with the preferred use of an ACE inhibitor or ARB + CCB or/and a thiazide-like diuretic as the core treatment strategy for most patients, with beta-blockers used for specific indications.

New Target ranges for BP in patients.

-Target BP ranges for patients and lower safety boundaries for treated BP, according to a patient's age and specific comorbidities.

For any scientific queries on above topic

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