



Hypertension Clinical Practice Guidelines

Definition

HTN is defined as persistent systolic blood pressure (SBP) and/or diastolic blood pressure (DBP) (office or out-of-office) levels above which harm and significant increment of morbidity and mortality are observed if left untreated.

Assessment (History and Examination)

Elevated BP Reading 1. If AOBP is used, use the mean (office, out-of-office) calculated and displayed by the device. if non-AOBP (see note 2) is used, take at least three readings, discard the first Dedicated Office Visit¹ YES and calculate the mean of the Mean Office BP ≥ 180/110 remaining measurements. A history and physical exam should be performed and diagnostic tests ordered. 2. AOBP = Automated office BP. This No Diabetes Diabetes³ 1. AOBP² ≥ 135/85 AOBP or is performed with the patient (preferred) non- AOBP² ≥ unattended in a private area. Non-AOBP = Non-automated **≪**NO Hypertension measurement performed using an electronic upper arm device with 2. Non-AOBP² ≥ 140/90 the provider in the room. (if AOBP 3. Diagnostic thresholds for AOBP, ABPM and home BP in patients with diabetes have vet to be established (and may be lower than 130/80 mmHg). Out-of-office Measurment⁴ 1. ABPM (preferred) 4. Serial office measurements over Daytime mean ≥ 135/85 3-5 visits can be used if ABPM or 24-hour mean ≥ 130/80 VES home measurement not available. OR 2. Home BP Series⁵ 5. Home BP Series: Two readings Mean ≥ 135/80 taken each morning and evening



cluster3Riyadh

NO

White Coat Hypertension



6 days.

for 7 days (28 total). Discard first

day readings and average the last

 Annual BP measurement is recommended to detect progression to hypertension.





Assessment (History and Examination)

Classification of HTN

Category	SBP (mm Hg)		DBP (mm Hg)
Normal	<120	and	<80
Pre-HTN	120-139	and/or	80-89
HTN Grade I	140-159	and/or	90-99
HTN Grade II	160-179	and/or	100-109
HTN Grade III	≥180	and/or	≥110

Table 2: Symptoms & signs suggestive of 2ry Hypertension

Causes	Clinical Features
Nephropathy	Kidney disease in the family (polycystic kidney disease)Episodes of blood or proteins in the urine, urinary infections, swelling of body Elevated S. creatinine, urinary sediment or casts. Abnormal renal USS.
Renovascular HTN	Initial onset before age 30 or after age 50 years. BP over 180/110. Hemorrhages and exudates in the fundi. Presence of abdominal bruit over renal arteries. Diminishing BP control. Women of child bearing age. Sudden worsening of previously controlled hypertension. Unexplained episodes of pulmonary edema. Acute decline in renal function (↑ S. Cr.) with ACEI or ARB. Unexplained decline in renal function.
Pheo- chromocytoma	Episodic symptoms: headache, flushing, sweating and palpitations. Extremely labile BP.Skin stigmata of neurofibromatosis.
Cushing's syndrome	Typical general appearance: truncal obesity, stretch marks
Conn's syndrome (primary aldosteronism)	Weakness, cramps, polyuria. $K+ < 3.5$ or diuretic-induced $\downarrow K+$ (< 3.0). Incidental adrenal mass.
Acromegaly	Tall stature, typical facies with prominent lower jaw, broad spade shaped hands
Coarctation of the aorta	High BP in upper limbs but not in lower limbs. Delayed or weak femoral pulses
Drugs	Contraceptive pill, anti-inflammatory drugs, steroids, sympathomimetics, nasal decongestants, appetite suppressants, cyclosporine, erythropoietin, licorice, antidepressants, tacrolimus, cocaine, amphetamines, other illicit drugs, dietary supplements and medicines (e.g., ephedra, ma huang, bitter orange)
Thyroid disease	Symptoms and signs of hyper- or hyopthyroid. Thyromegaly or thyroid nodule
Obstructive sleep apnea (OSA)	A history of snoring during sleep and irresistible sleep and tiredness during daytime.

















Management

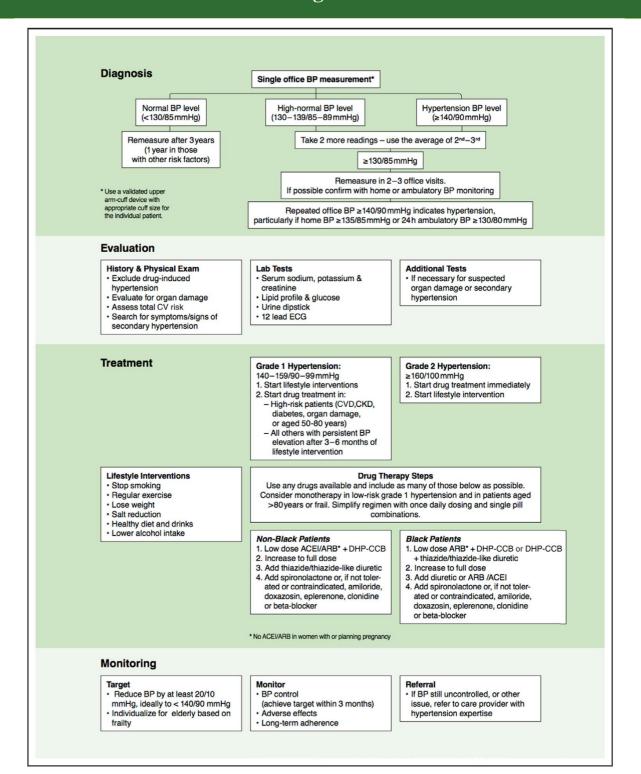


Figure 5. ISH 2020 ESSENTIAL recommendations (minimum standards of care).











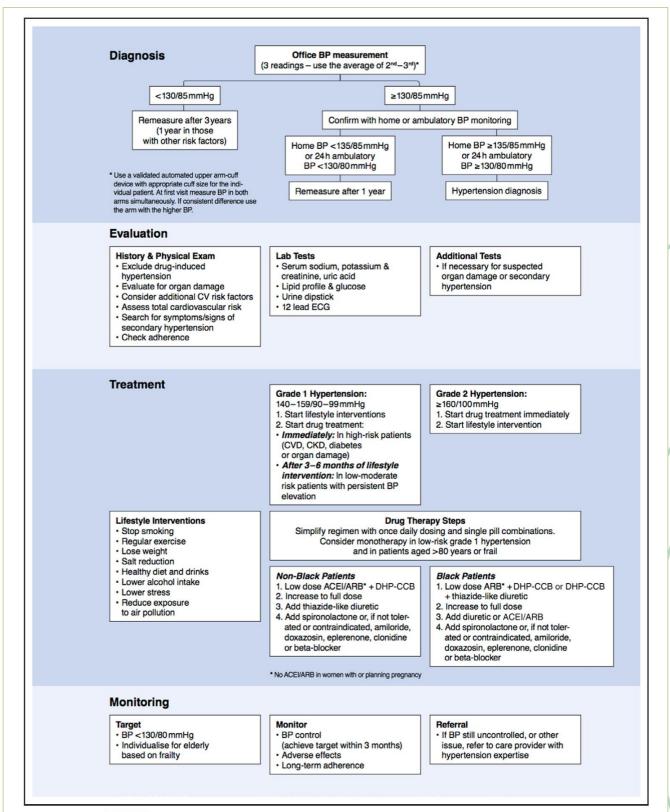


Figure 6. ISH 2020 OPTIMAL recommendations (evidence-based standards of care).

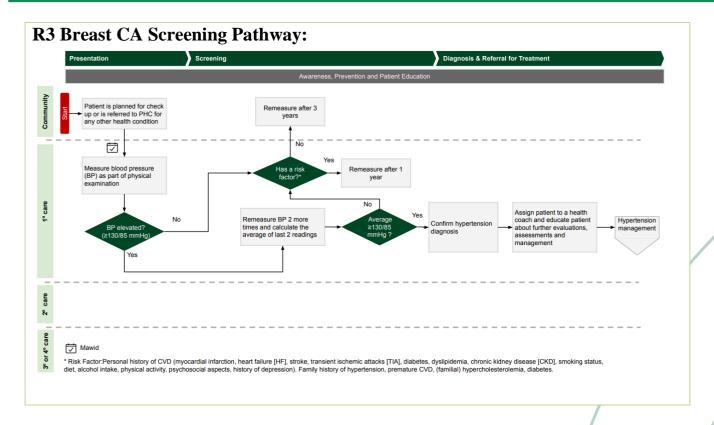












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SHAMS Guidelines





