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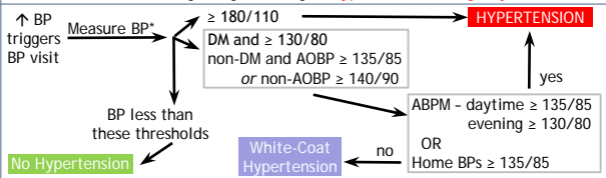
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Hypertension Assessment

Manual BP	PATIENT: Back, arm supported, empty bladder, seated comfortably with legs uncrossed X 5 min, no talking prior/during measurement.
	CUFF: Over bare arm, 3 cm above elbow crease, at level of right atrium, width & length of cuff bladder should be 40% & 80-100% of arm circ.
	MEASUREMENT: Inflate 30 mmHg above radial pulse oblit., deflate by 2 mmHg per sec; do 3 times, at least 60 sec apart; discard 1 st , take avg. of 2 nd + 3 rd

Diagnosis
BP ≥ 180/120 + acute target organ damage = **hypertensive emergency** → EMS/ED



* Measurements ideally by automated BP machines (AOBP)

Routine laboratory assessment (if dx): Na, K, Cr (or eGFR), FBG, fasting lipid panel, urinalysis (for blood & prot), ECG (for LVH). Consider ACR.

History and Physical: Red Flags

Secondary Hypertension	GENERAL SIGNS: abrupt or severe onset, or ages <25 or >55	*Tests to consider
	CONTRIBUTING FACTORS: ↑ Salt intake, sedentary, stress	
	HYPERTHYROIDISM: Palpitations, sweating, tremor, anxiety, freq. bowel movements, weight loss, vision changes, goiter. <i>TSH</i>	
	AORTIC COARCTATION: interscapular murmur, delayed femoral pulses, asymmetric BP across both arms or leg. <i>CXR, CT-Angio</i>	
	CUSHINGS: Easy bruising, truncal obesity, hyperglycemia, hirsutism, prox. muscle weakness, thin skin, ecchymosis, facial plethora, round face, buffalo hump, striae, depression, anxiety, psychosis, <i>24-hr urine cortisol excretion</i>	
	PRIMARY HYPERALDOSTERONISM: resistant HTN, signs of ↓K ⁺ : arrhythmias, muscle weakness, fatigue, ↓DTR & bowel sounds. <i>Ald:renin ratio</i>	
	OSA: Snoring, witnessed apneas, daytime drowsiness, AM headache, impaired concentration. <i>Sleep study with O2 saturation monitoring.</i>	
End Organ Damage	RENAL PARENCHYMAL DISEASE: Hx of UTIs/obstructions, hematuria, NSAID abuse, FamHx of polycystic kidney disease, abdominal mass. <i>Renal US</i>	
	MEDS/HERBS: NSAIDs, OCP, steroids, pseudoephedrine, cocaine	
	PHEOCHROMOCYTOMA: episodes of headaches, sweating & ↑HR <i>Plasma Fractionated Metanephrines, 24hr urine for metanephrines</i>	
	PERIPHERAL ARTERY DISEASE: Claudication, asym or delayed femoral pulses, cold extremities and weak/absent pedal pulses; carotid, abdominal, femoral bruits. <i>ABI, US Doppler</i>	
	HEART FAILURE: Exertional SOB, fatigue, PND, orthopnea, S3, murmurs, ↑JVP, displaced apical impulse, basilar crackles, peripheral edema.	
CAD: angina; ARRHYTHMIA: Palpitations, SOB, presyncope, syncope.		
LVH: S4, sustained apical impulse. <i>ECG, ECHO, Holter Monitor</i>		
STROKE/TIA: on PMHx, abnormal strength, gait, speech, cognition. <i>MRI, CT</i>		
HYPERTENSIVE RETINOPATHY: Advanced findings include hemorrhages, exudates, papilledema on fundoscopy. <i>Ophthalmology referral</i>		