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Canadian Family Medicine Clinical Card

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Hypertension Assessment

Manual BP

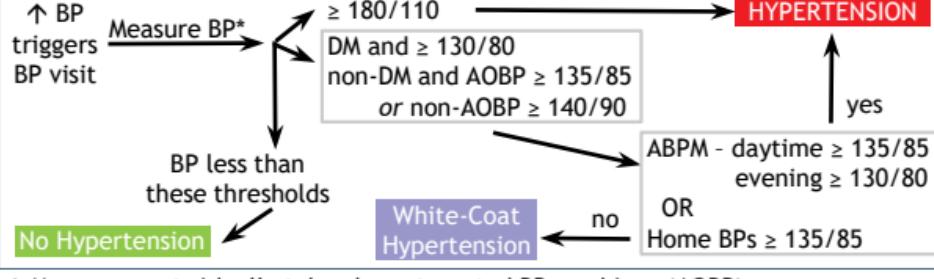
PATIENT: Back, arm supported, empty bladder, seated comfortably with legs uncrossed X 5 min, no talking prior/during measurement.

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 oblitr., deflate by 2 mmHg per sec; do 3 times, at least 60 sec apart; discard 1st, take avg. of 2nd + 3rd.

Diagnosis

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



* Measurements ideally taken 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 Alb:Creat. ratio.

History and Physical: Red Flags

Secondary Hypertension	GENERAL SIGNS: abrupt or severe onset, or ages <25 or >55. CONTRIBUTING FACTORS: ↑ salt intake, sedentary, stress. HYPERTHYROIDISM: palpitations, sweating, tremor, anxiety, freq. bowel movements, weight loss, vision changes, goiter. TSH AORTIC COARCTATION: interscapular murmur, delayed femoral pulses, asymmetric BP across both arms or leg. CXR, CT-Angio CUSHINGS: easy bruising, truncal obesity, hyperglycemia, hirsutism, prox. muscle weakness, thin skin, ecchymosis, facial plethora, round face, buffalo hump, striae, depression, anxiety, psychosis. 24-hr urine cortisol excretion PRIMARY HYPERALDOSTERONISM: resistant HTN, signs of ↓K ⁺ : arrhythmias, muscle weakness, fatigue, ↓DTR & bowel sounds. Ald:renin ratio OSA: snoring, witnessed apneas, daytime drowsiness, AM headache, impaired concentration. Sleep study with O2 saturation monitoring . RENAL PARENCHYMAL DISEASE: Hx of UTIs/obstructions, hematuria, NSAID abuse, FamHx of polycystic kidney disease, abdominal mass. Renal US MEDS/HERBS: NSAIDs, OCP, steroids, pseudoephedrine, cocaine. PHEOCHROMOCYTOMA: episodes of headaches, sweating & ↑HR. Plasma Fractionated Metanephrenes, 24hr urine for metanephrenes	*Tests to consider
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End Organ Damage	PERIPHERAL ARTERY DISEASE: claudication, asym or delayed femoral pulses, cold extremities and weak/absent pedal pulses; carotid, abdominal, femoral bruits. ABI, US Doppler 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. ECG, ECHO, Holter Monitor STROKE/TIA: on PMhx, abnormal strength, gait, speech, cognition. MRI, CT HYPERTENSIVE RETINOPATHY: advanced findings include hemorrhages, exudates, papilledema on fundoscopy. Ophthalmology referral
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Key References: Pickering TG, et al. Recommendations for blood pressure measurement in humans and experimental animals: part 1: blood pressure measurement in humans: a statement for professionals from the Subcommittee of Professional and Public Education of the American Heart Association Council on High Blood Pressure Research. *Circulation*. 2005;111(5):697-716. Nerenberg KA, et al. Hypertension Canada's 2018 Guidelines for Diagnosis, Risk Assessment, Prevention, and Treatment of Hypertension in Adults and Children. *Can J Cardiol*. 2018;34(5):506-25.