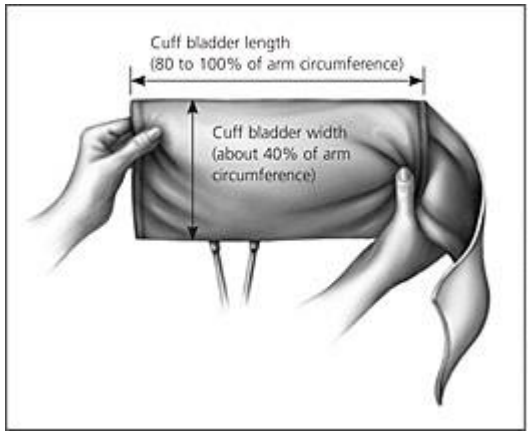

label
البرنامج التدريبي لإعداد الصيادلة

Hypertension

كيف؟

كيف نشخصه ؟



a. Periodic screening for all people **older than 21 years**

b. Patient should be seated quietly in chair for at least **5 minutes**.

c. Use appropriate cuff size (bladder length at least **80%** the circumference of the arm).

d. Take BP at least **twice**, separated by at least **2 minutes**.

e. The average BP on two separate visits is required to diagnose HTN accurately.

f. Home blood pressure monitoring (HBPM) and ambulatory blood pressure monitoring (ABPM) are recommended to confirm diagnosis, screen for white-coat HTN, and screen for masked HTN

i. **White-coat HTN**: Office blood pressure is 130/80-160/100 mm Hg after a 3-month trial of lifestyle modification but with daytime ABPM or HBPM blood pressure less than 130/80 mm Hg

ii. **Masked HTN**: Office blood pressure is 120-129/less than 80 mm Hg after a 3- month trial of lifestyle modification; daytime ABPM or HBPM blood pressure of 130/80 or greater

كيف نقسمه ؟

a. Essential HTN: 90% (no identifiable cause)

i. Obesity is a contributor

ii. Evaluate Na intake

b. Secondary HTN

i. Primary aldosteronism

ii. Renal parenchymal disease

iii. Renal artery stenosis

iv. Obstructive sleep apnea

v. Cushing syndrome

vi. Thyroid or parathyroid disease

vii. Medications (e.g., cyclosporine, NSAIDs, sympathomimetics)

viii. Pheochromocytoma

كيف نصنفه؟

BP Classification	SBP (mm Hg)		DBP (mm Hg)
Normal	< 120	*and*	< 80
Elevated	120-129	*and*	< 80
Stage 1 hypertension	130-139	*or*	80-89
Stage 2 hypertension	≥140	*or*	≥ 90
Hypertensive urgency/ emergency	>180	*or*	>120

كيف يُغيّر المريض عاداته ؟

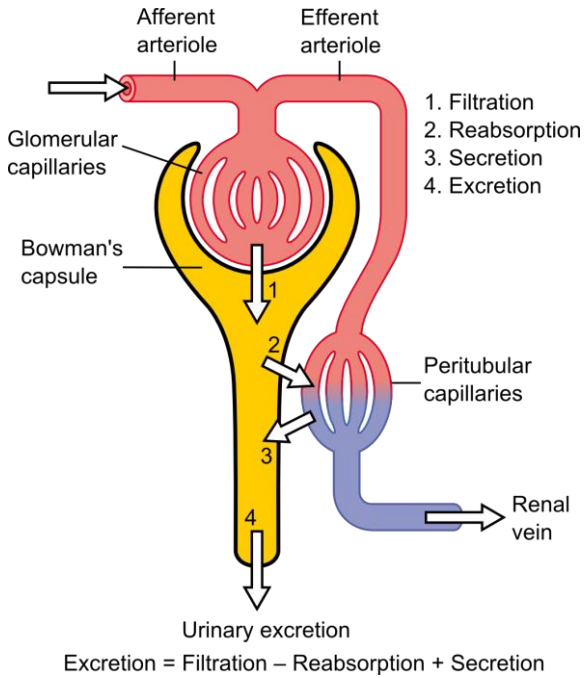
Modification	Recommendation	Approximate SBP Reduction
Weight reduction	Maintain a normal body weight (BMI 18.5–24.9 kg/m^2)	5–20 mm Hg per 10-kg weight loss
Adopt DASH eating plan (includes substantial K intake)	Consume a diet rich in fruits, vegetables, and low-fat dairy products with a reduced content of saturated and total fat	8–14 mm Hg
Reduce Na intake	Reduce Na intake to < 1500 mg/day Reducing Na intake by at least 1000 mg/day will lower BP if desired daily Na intake goal is not achieved	2–8 mm Hg
Physical activity	Engage in regular aerobic physical activity such as brisk walking (at least 30 min/day most days of the week)	4–9 mm Hg
Moderation of alcohol consumption	Limit consumption to: Men: 2 drinks/day (24 oz of beer, 10 oz of wine, or 3 oz of 80-proof whiskey) Women and those of lower body weight: 1 drink/day	2–4 mm Hg

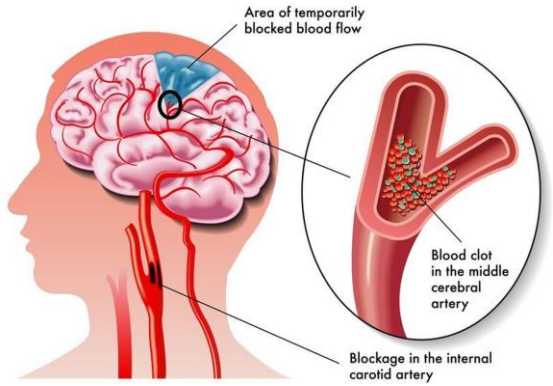
كيف نتعامل مع الحالات المختلفة ؟

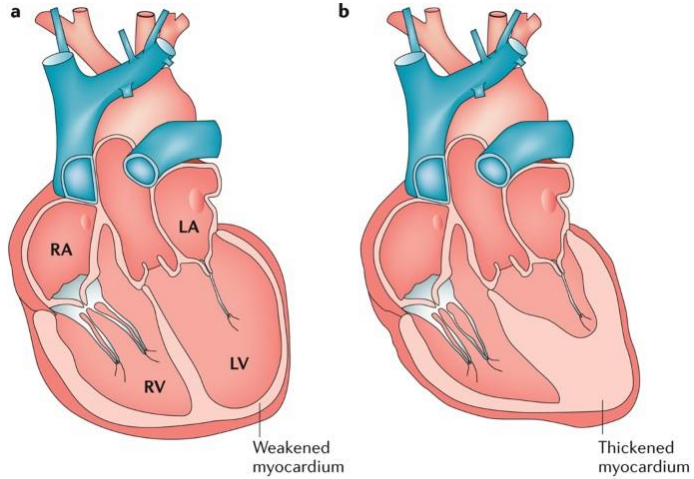
a. Initiating therapy with a **single antihypertensive** drug is reasonable in adults with stage 1 HTN and a BP goal of less than 130/80 mm Hg

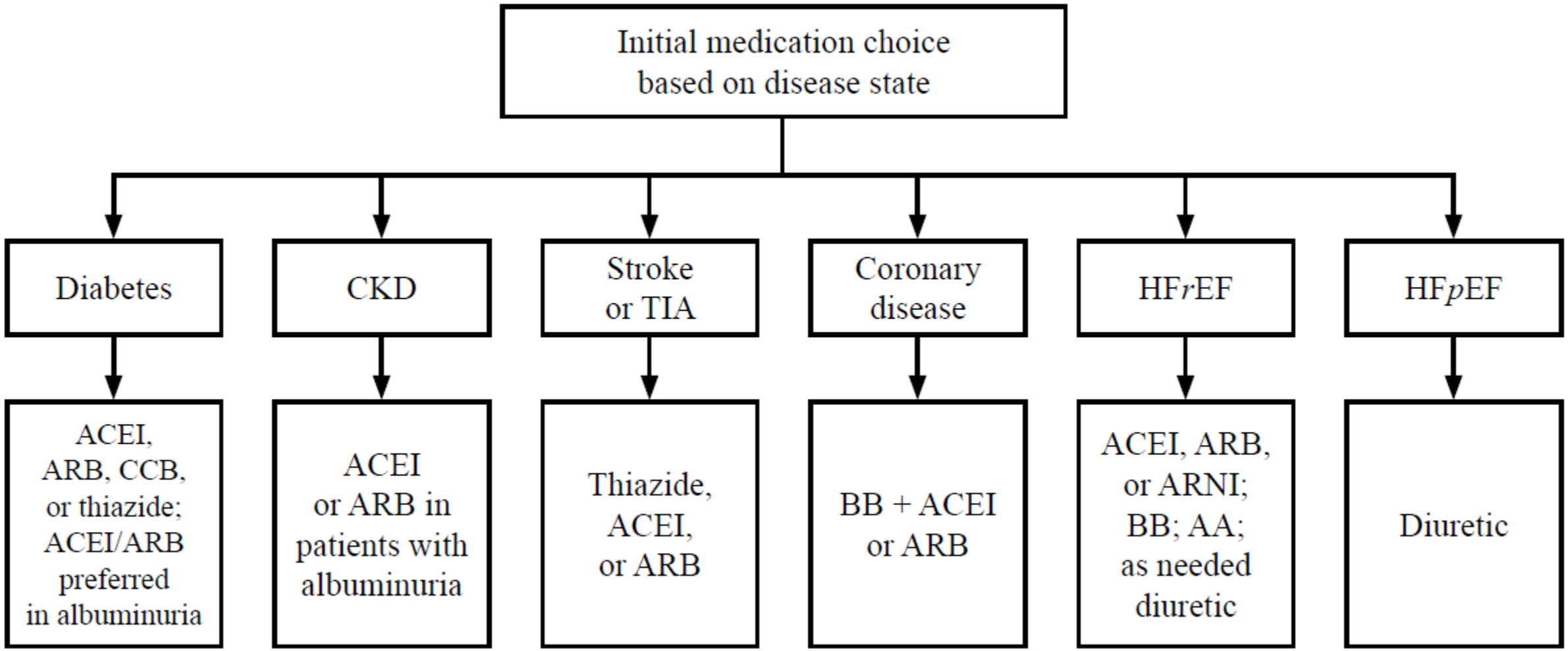
b. Initiating antihypertensive drug therapy with **two first-line agents** of different classes is recommended in adults with stage 2 HTN and an average BP greater than 20/10 mm Hg above their BP target

c. **First-line agents** include thiazide diuretics, CCBs, and ACEIs or ARBs.









β-Blockers

i. Caution with asthma or severe chronic obstructive pulmonary disease (especially higher doses) because of pulmonary β-receptor blockade, especially with nonselective β-blockers or high-dose selective β-blockers.

ii. Greater risk of developing DM than with an ACE inhibitor, ARB, and CCB; use caution in patients at high risk of DM (e.g., family history, obesity)

iii. Can mask some signs of hypoglycemia in patients with DM

iv. Can cause depression

Thiazides

i. Can worsen gout by increasing serum uric acid

ii. Not recommended for patients with a CrCl less than 30 mL/minute because of reduced efficacy

iii. Greater risk of developing DM than with ACE inhibitor, ARB, and CCB; use caution in patients at high risk of DM (e.g., family history, obesity)

iv. Can assist in the management of osteoporosis by preventing urine calcium loss

c. ACE inhibitors and ARBs

i. Contraindicated in pregnancy

ii. Contraindicated with bilateral renal artery stenosis

iii. Monitor K closely, especially if renal impairment exists or another K-sparing drug or K supplement is used.

e. Calcium channel blockers

i. Dihydropyridine CCBs

(a) Amlodipine, felodipine, nifedipine

(b) Monitor for peripheral edema, reflex tachycardia, and orthostatic hypotension

(c) Useful for isolated systolic hypertension or use in African American patients

ii. Nondihydropyridine CCBs

(a) Diltiazem, verapamil

(b) Indicated in hypertensive patients with comorbid conditions which would benefit from HR reduction (e.g., atrial fibrillation, stable angina)

(c) Contraindicated in heart block and sick sinus syndrome