1

* Measurements of blood pressure:

Systolic BP ⇒ 1st Kortokoff sound.

Diastolic BP ⇒ 5th Kortokoff sound.

3

When measure the BP for a patient:

- لازم ما يكون مدخن ولا شارب قهوة لمدة ساعة
- يجلس 5-10 دقائق بالموقع اليا بدي اقيسه، وما يحكي ولا يتحرك و يسترخي
- يجلس ظهره مركيا وايده مركية (His back and supported) متن بالهوا
- Proper cuff size
- قبل ما أكتبله عنده ضغط، لازم يكون في 2 office readings ما بعتمد على قراءة وحدة

2

	SBP		DBP
Normal	<120	and	<80
Elevated	120-129	and	<80
Stage 1	130-139	OR	80-89
Stage 2	≥140	OR	≥90

9

① Normotensive ⇒ No hypertension in both Home and Office

② Sustained hypertension ⇒ Hypertension in both Home and Office (clinic)

③ Masked Hypertension ⇒
In office → no hypertension.
In Home → Hypertension

④ White Coat Hypertension ⇒ عكس ③

5

* Secondary Hypertension ⇒ Common cause is (Obstructive sleep Apnea)

↳ Drug resistant يكون
- → Taking 3 drugs max. dose / DM
- or → Taking 4 drugs

⇓

Management:
continuous positive Airway pressure (Pushes the Air)

6

* Renal Artery Stenosis

- → Intractable Heart Failure (HF)
- → Bruits (Paraumbilical)

Atherosclerosis (بسبب هيك) in proximal part (near the origin) in old people
⇓
we use stents

Fibromuscular Dysplasia in middle to distal part (media narrowing)
Beading ⇒ زي الخرز in young females
⇓
we use Balloon Angioplasty

7

COR ⇒ Class of recommendation
1 Highly recom. (Beneficial)
2 → 2a probably beneficial
→ 2b possibly "
3 Harmful

LOE ⇒ Level of evidence
A ⇒ multiple studies
B ⇒ Single
C ⇒ إجماع ناس مختصة

[COR 1 | LOE A] ⇒ weight loss / Dietary approach to stop HT (DASH)
Na^+ restriction / $\uparrow K^+$ salts / physical activity / Alcohol limitation.

[COR 1 | LOE B] ⇒ Stage 1 130-139 or 80-89 ⇒ If there is risk factors: (DM / Chronic Kidney Disease (CKD) / ≥ 65 old / ASCVD > 10%) ⇒ needs drug

⇓ If non and ASCVD < 10% ⇒ non-pharmacologic ⇒ lifestyle

Stage 2
≥ 140 or ≥ 90 ⇒ 2 drugs (Because 1 drug ⇒ ↓ 10-14 mmHg systolic so I need another agent)

[COR 3 | LOE A] ⇒ ACEI + ARBs and/or renin inhibitors (Don't use them simultaneously / Don't use them together)
Harmfull! They will cause Hyperkalemia and Acute Kidney injury

* Drugs for Only Hypertension: ① ACEI ② ARBs ③ Thiazide ④ CCBs

* HT + IHD ⇒ ① β-blockers (1st line) ② ACEI ③ ARBs

* HT + HF: ⇒ [1] Heart failure reduced ejection fraction (HFrEF)
EF < 40 ⇒ ① ACEI (1st line) ② ARBs ③ β-blockers ④ Spironolactone (MRAs)
* Don't give nondihydropyridine CCBs

[2] HFpEF EF > 50

[3] EF = 40-50 mildly reduced EF

* HT + Chronic Kidney Disease ⇒ ① Stage 3 or higher
② Stage 1/2 [+] Albuminuria ≥ 300 mg
⇒ ACEI (If Tolerance developed mainly it will be due to bradykinin accumulation ⇒ coughing)

(12)

* HT + Acute Intracranial Hemorrhage

If 150-220 systolic
⇓
Don't lower it below 140mmHg
عشان نضل في ضخ دم

If >220
⇓
Lower BP + IV
⇓
عشان ما يصير Bleeding في

* HT + Acute Ischemic Stroke

① with thrombolytics → First we drop BP less than $\frac{185}{110}$ then we maintain the BP less than $\frac{180}{105}$ for the first 24 hours then Thrombolytics

② without → If $> \frac{220}{110}$ ⇒ we lower it by 15% first 24h
If $< \frac{220}{110}$ ⇒ 48-72h سواء بلبشت علاج أو ما بلبشت بأول
It is ineffective.

(13) * HT + DM ⇒ Treated Normally as if there is no DM.

* HT + Atrial fibrillation ⇒ ARBs

* HT + Vascular Heart Disease
→ stenosis ⇒ Nothing speafic about it
→ Regurgitation
↓ ما بدك يكون ال ↓HR
لأنو هيك بتصير Diastolic During
وبالتالي بدنا تقلل المدة اللي بتكون ال Regurgitation تصير فيها.

Avoid using β-Blockers and nondihydropyridine as they decrease the HR

* HT + Aortic Aneurysm/Dissection ⇒ β-blockers
→ reduces dp/dt ⇒ Ejection force
عشان نقلل الضغط على ال Aorta.