

Guideline for diagnosis and management of hypertension and hypertensive emergencies

DIAGNOSING HYPERTENSION

- Use either automated or manual BP device
- Follow standardised procedure for measuring BP
- Take the average of 2+ readings

Blood pressure $\geq 140/90$ = Hypertension

Blood pressure $\geq 180/120$ = Severe hypertension

Blood pressure $\geq 180/120$ + NEW end-organ damage = Malignant hypertension

CAUSES OF SECONDARY HYPERTENSION

Endocrine	<ul style="list-style-type: none"> • Cushing's syndrome • Thyrotoxicosis • Pheochromocytoma • Conn's Syndrome • Acromegaly
Vascular	<ul style="list-style-type: none"> • Renal Artery Stenosis • Coarctation of aorta • Aortic dissection
Others	<ul style="list-style-type: none"> • Drugs e.g. steroids, contraceptives, cocaine, calcineurin inhibitors • Obstructive sleep apnoea • Pre-eclampsia

IDENTIFYING END-ORGAN DAMAGE

Target organ	Investigations	Findings
Eyes	Fundoscopy	Signs of hypertensive retinopathy e.g. haemorrhage, cotton wool spots, papilloedema
Kidneys	Urinalysis	Proteinuria Haematuria
	Blood test	Evidence of CKD (AKI if malignant HTN)
Heart	ECG	LV hypertrophy

MANAGEMENT OF HYPERTENSION

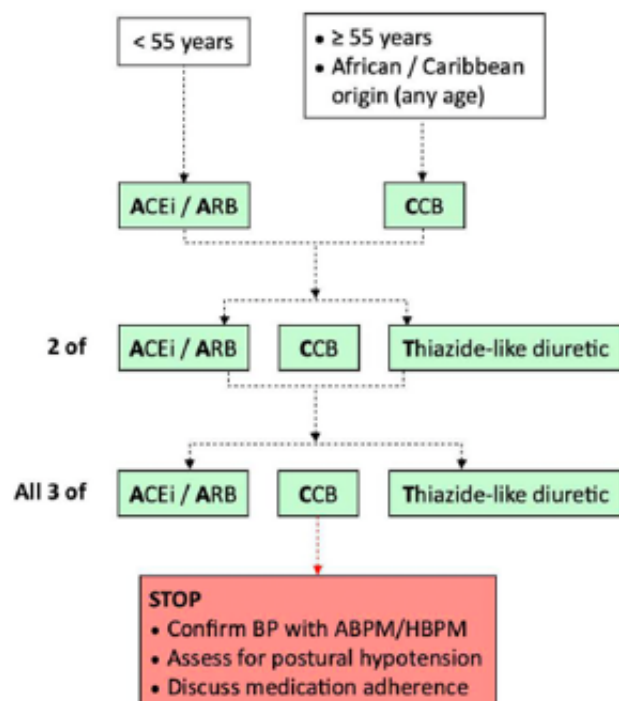
Chronic

1. **Education and lifestyle measures** Reducing salt intake, weight loss and exercise are proven to reduce blood pressure.
2. **Drugs** – see image on right. Consider lifestyle measures first line unless severe hypertension/end-organ damage present

Malignant hypertension

1. **ABCDE** assessment
2. **Commence IV treatment** e.g. labetalol infusion 20mg/hr and uptitrate as necessary
3. **Investigate and address cause** e.g. history of drug use, pregnancy test, TFTs
4. **Establish oral therapy** before stopping IV treatment
5. **Monitor end-organ damage**

FLOW CHART FOR PHARMACOLOGICAL MANAGEMENT OF CHRONIC HYPERTENSION



ACE-I = ACE Inhibitor. ARB = Angiotensin Receptor Blocker. CCB = Calcium Channel Blocker