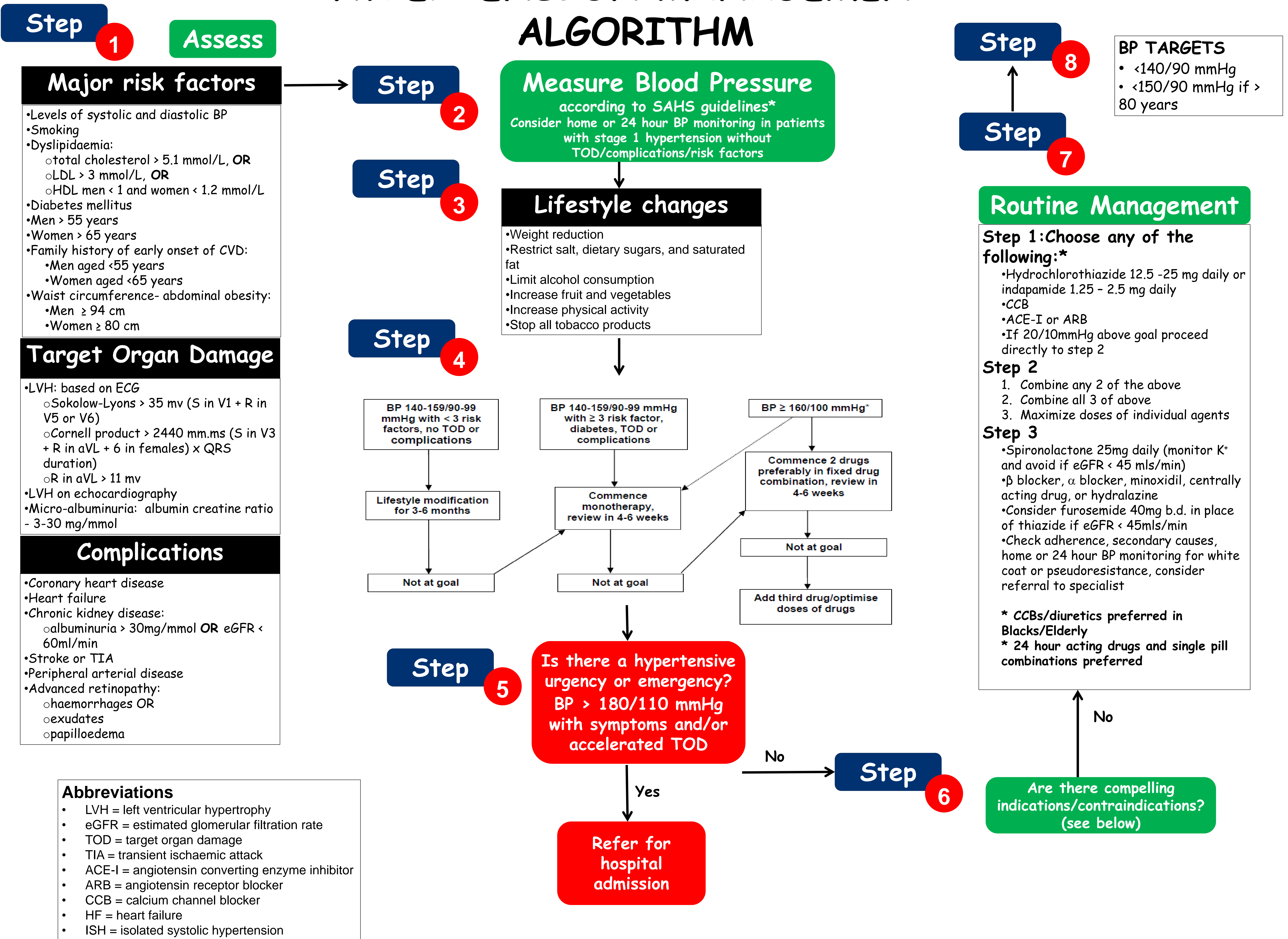


HYPERTENSION MANAGEMENT ALGORITHM



Routine Tests and Measurements		
TEST	FREQUENCY	COMMENT
ANTHROPOMETRY		
• Body weight	Every visit	
• Height	First visit	
• BMI	Every visit	< 25 for men and women
• Waist circumference	Every visit	Men <94 cm; Women <80 cm*
URINE DIPSTICK ROUTINE		
• Protein.	• First visit	ABNORMAL DIPSTICK Any one of the following: • Proteinuria ≥ 2+; • Haematuria ≥ 1+. Refer for further investigation
• Blood.	• Yearly if normal	
• Glucose	• Repeat at next visit if abnormal on first visit	
URINE ALBUMIN/ CREATININE RATIO -Diabetes mellitus only	First visit then yearly	• Performed on diagnosis of diabetes mellitus type 2 or 5 years after the diagnosis type 1
BLOOD TESTS		
• Creatinine	Yearly if normal (except uric acid)	Use eGFR in ml/min/ 1.73m ²
• Sodium/Potassium		
• Uric acid		
Fasting glucose	Yearly if normal	• GTT/HBA _{1c} in patients with impaired fasting glucose.
Random total cholesterol	Yearly if normal	Measure fasting lipogram if cholesterol > 5.1 mmol/L or in high risk groups
HBA _{1c}	6 monthly	Diabetics only
ECG (RESTING)	Yearly in high risk patients	Refer to criteria for LVH, check for signs of ischaemia
SECONDARY CAUSE or COMPLICATIONS	Referral	This may include but not limited to ultrasound kidneys, CT scan/angiography and vascular studies, sleep studies or endocrine tests as indicated by clinical suspicion

Compelling indications and contraindications			
CLASS	CONDITIONS FAVOURING THE USE	CONTRAINDICATIONS	
		COMPELLING	POSSIBLE
DIURETICS (thiazide; thiazide-like)	• HF • Elderly • ISH • Hypertensives of African origin.	• Gout	• Pregnancy • β blockers (especially atenolol)
DIURETICS (loop)	• Renal insufficiency • HF		• Pregnancy
DIURETIC (anti-aldosterone)	• HF • Post-myocardial infarction • Resistant hypertension	• Renal failure • Hyperkalaemia	
CCB LONG ACTING ONLY (dihydropyridine)	• Elderly • ISH • Angina pectoris • Peripheral vascular disease • Carotid atherosclerosis • Pregnancy (nifedipine only)		• Tachyarrhythmias • HF
CCB non-dihydropyridine (verapamil, diltiazem)	• Angina pectoris • Carotid atherosclerosis • Supraventricular tachycardia	• AV block (grade 2 or 3) • HF	• Constipation (verapamil)
ACE-I	• HF • LV dysfunction • Post-myocardial infarction • Non-diabetic nephropathy • Type 1 diabetic nephropathy • Prevention of diabetic microalbuminuria • Proteinuria	• Pregnancy; • Hyperkalaemia; • Bilateral renal artery stenosis • Angioneurotic oedema (more common in blacks than in Caucasians)	
ARB	• Type 2 diabetic nephropathy • Type 2 diabetic with microalbuminuria • Proteinuria • LVH • ACE-I cough or intolerance	• Pregnancy; • Hyperkalaemia • Bilateral renal artery stenosis.	
β-BLOCKER	• Angina pectoris • Post-myocardial infarction • HF (selected only) • Tachyarrhythmias	• Asthma • Chronic obstructive pulmonary disease • AV block (grade 2 or 3) • Pregnancy (atenolol)	• Peripheral vascular disease • Bradycardia • Glucose intolerance • Metabolic syndrome • Athletes and physically active patients • Non dihydropyridine CCB's (verapamil, diltiazem)

- Suggested referral to specialist level**
- Severe or resistant hypertension
 - Labile hypertension
 - Secondary causes suspected
 - Progressive TOD, complications or multiple comorbidities
 - Hypertensive urgency or emergency