Pharmacotherapy for hypertension

Depending on the severity of hypertension, presence of risk factors, target organ disease and/or associated clinical conditions, pharmacotherapy may be needed as well as lifestyle modification.
- Note that many anti-hypertensive and anti-retroviral drugs interact pharmacokinetically. ¹
- Always check for drug-drug interactions (refer to the drug-drug interactions section for more details). ¹

Figure 1: Algorithm for initiating pharmacotherapy in patients newly diagnosed with hypertension

A = ACE inhibitor (e.g. perindopril, lisinopril, ramipril) or low cost angiotensin receptor blockers (ARB) (e.g. losartan, candesartan)
C = Dihydropyridine calcium-channel blocker (e.g. amlodipine). If not tolerated, verapamil (dose with caution with PIs which may increase plasma concentrations leading to toxic reactions), or diltiazem may be used.
D = thiazide-type diuretic (e.g. indapamide or chlorthalidone).

i. Several anti-hypertensive drugs interact with the pharmacokinetics of ART – check always for drug-drug interactions
ii. Black patients are those of African or Caribbean descent, and not mixed race, Asian or Chinese patients.
iii. wait 2-6 weeks to assess whether target is achieved – if not go to next step
iv. Requirement of 4-5 drugs to manage hypertension needs specialist training


Refer to the European Society of Cardiology and European Society of Hypertension (ESH/ESC) guidelines (2007)* for clinical trial data on pharmacological treatments.
Use of thiazide diuretics or beta-blockers may confer an increased risk of developing diabetes. Refer to the ESH/ESC guidelines (2007) or the US DHHS JNC7 express report (2003) for further details (not HIV-specific).
Refer to ESH/ESC Guidelines (2007)* or the US DHHS JNC7 express report (2003)* for specific considerations in patients with the following characteristics (not HIV-specific):

- resistant hypertension
- hypertensive emergencies and acute target organ damage
- malignant hypertension
- postural hypotension
- left ventricular hypertrophy
- cerebrovascular disease
- coronary/ischemic heart disease and heart failure
- peripheral arterial disease
- atrial fibrillation
- diabetes
- non-diabetic renal disease and chronic kidney disease
- metabolic syndrome
- dementia
- women
- children and adolescents
- aged ≥60 years.

References

