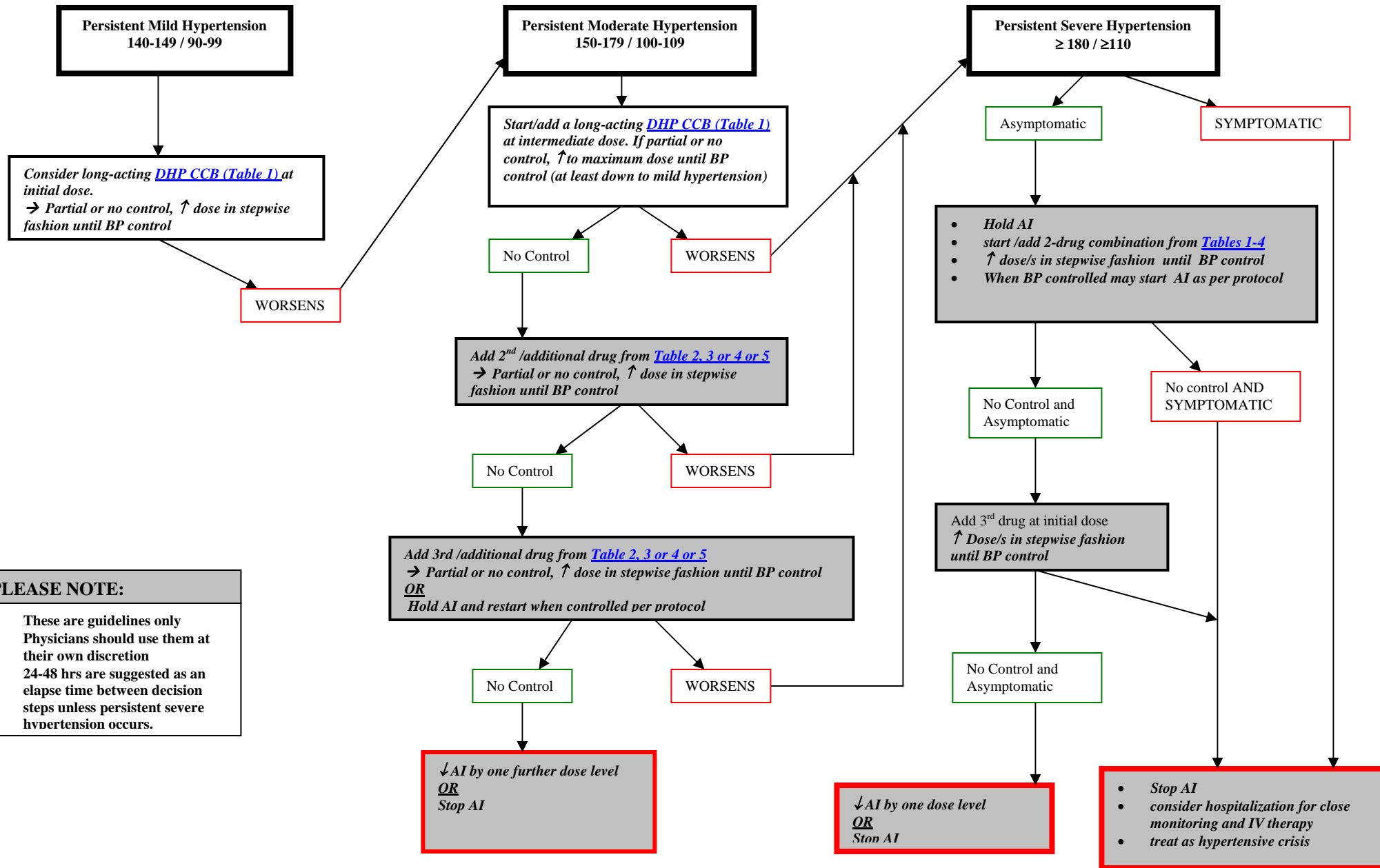


# Appendix 8: Management of Angiogenesis Inhibitor (AI)-induced Hypertension



**Table 1. Dihydropyridine calcium-channel blockers**

Agent	Initial dose	Intermediate dose	Maximum dose	Hepatic metabolism?
Nifedipine XL Amlodipine Felodipine	30 mg po qd 2.5 mg po qd 2.5 mg po qd	60 mg po qd 5 mg po qd	90 mg po qd 10 mg po qd 10 mg po qd	CYP 3A4 substrate CYP 3A4 substrate CYP 3A4 substrate + inhibitor

▲ [Top](#)**Table 2: Selective  $\beta$  blockers**

Agent	Initial dose	Intermediate dose	Maximum dose	Hepatic metabolism?
Metoprolol Atenolol Acebutolol Bisoprolol	25 mg po bid 25 mg po qd 100 mg po bid 2.5 mg po qd	50 mg po bid 50 mg po qd 200mg-300 mg po bid 5-10 mg po bid	100 mg po bid 100 mg po qd 400 mg po bid 20 mg po qd	CYP 2D6 substrate No Yes (CYP 450???) Yes (CYP 450???)

▲ [Top](#)**Table 3. Angiotensin Converting Enzyme Inhibitors (ACEIs)**

Agent	Initial dose	Intermediate dose	Maximum dose	Hepatic metabolism?
Captopril Enalapril Ramipril Lisinopril Fosinopril Rarely used: Perindopril Quinapril	12.5 po tid 5 mg po qd 2.5 mg po qd 5 mg po qd 10 mg po qd 4mg po qd 10mg po qd	25 mg po tid 10-20 mg po qd 5 mg po qd 10-20 mg po qd 20 mg po qd none 20 mg po qd	50 mg po tid 40 mg po qd 10 mg po qd 40 mg po qd 40 mg po qd 8mg po qd 40 mg po /qd	CYP 2D6 substrate CYP 3A4 substrate Yes (CYP 450???) No Yes (CYP 450???) Yes but not per CYP 450 No

▲ [Top](#)**Table 4. Angiotensin II Receptors Blockers (ARBs)**

Agent	Initial dose	Intermediate dose	Maximum dose	Hepatic metabolism?
Losartan Candesartan Irbesartan Telmisartan Valsartan	25mg po qd 4mg po qd 75mg po qd 40 mg po qd 80 mg po qd	50 mg po qd 8-16 mg po qd 150 mg po qd none none	100 mg po qd 32mg po qd 300 mg po qd 80 mg po qd 160mg po qd	CYP 3A4 substrate CYP 2C9 substrate CYP 2C9 substrate Yes but not per CYP 450 Yes but not per CYP 450

▲ [Top](#)**Table 5.  $\alpha$  and  $\beta$  blocker**

Agent	Initial dose	Intermediate dose	Maximum dose	Hepatic metabolism?
Labetolol	100 mg po bid	200 mg po bid	400 mg po bid	CYP 2D6 substrate and inhibitor

▲ [Top](#)

**NB. Agents in bold characters are suggested as optimal choices to avoid or minimize potential drug-interactions with angiogenesis inhibitors metabolised through CYP-450 (e.g. sunitinib and sorafenib)**