PIPADOR REVISION

MRCOG Part 1 Revision Notes

Antihypertensives

PHARMACOLOGY • LECTURE 382

VISUAL EXAMINATION REVISION NOTES

2026 Edition

382

MRCOG PART 1 REVISION NOTES | PHARMACOLOGY

Antihypertensives

Pharmacology and use of antihypertensives in pregnancy, severe hypertension and postnatal care

Labetalol	135/85	ACEi / ARB	Enalapril
First line (NICE)	Target BP	Fetotoxic — stop	Postnatal & breastfeeding

■ KEY FACTS: Learning objectives

- Describe the pharmacology of antihypertensives used in pregnancy.
- Describe management of chronic, gestational and severe hypertension (NICE NG133).
- Describe drugs to avoid and postnatal/breastfeeding choices.

382.1 Drugs and safety

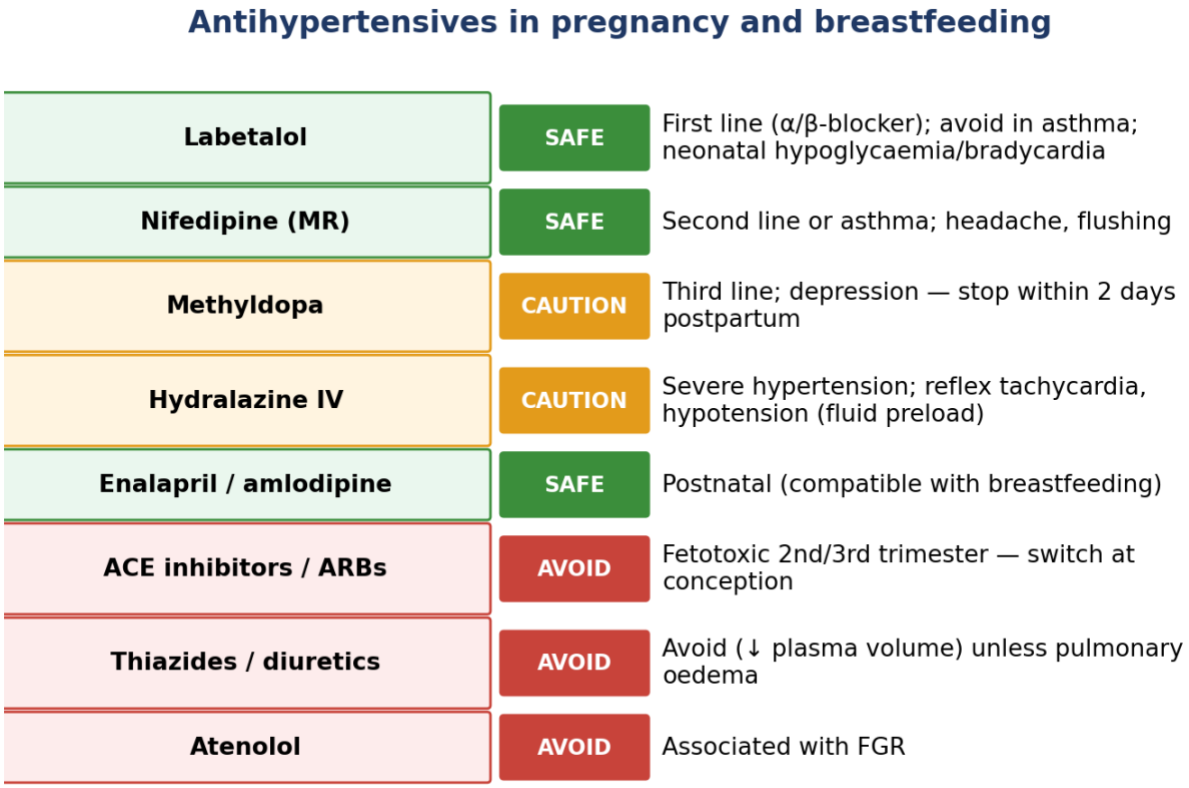


Figure 382.1 — Antihypertensives in pregnancy

Drug	Mechanism
Labetalol	α_1 + non-selective β blockade → ↓ SVR with little reflex tachycardia
Nifedipine	Dihydropyridine Ca^{2+} channel blocker → arteriolar vasodilatation
Methyldopa	Central α_2-agonist → ↓ sympathetic outflow (slow onset; sedation, depression, haemolytic anaemia)

Drug	Mechanism
Hydralazine	Direct arteriolar vasodilator (cGMP) — reflex tachycardia, headache, lupus-like (chronic)
ACE inhibitors / ARBs	Block Ang II → fetal renal failure, oligohydramnios, skull hypoplasia (2nd/3rd trimester)

382.2 Management

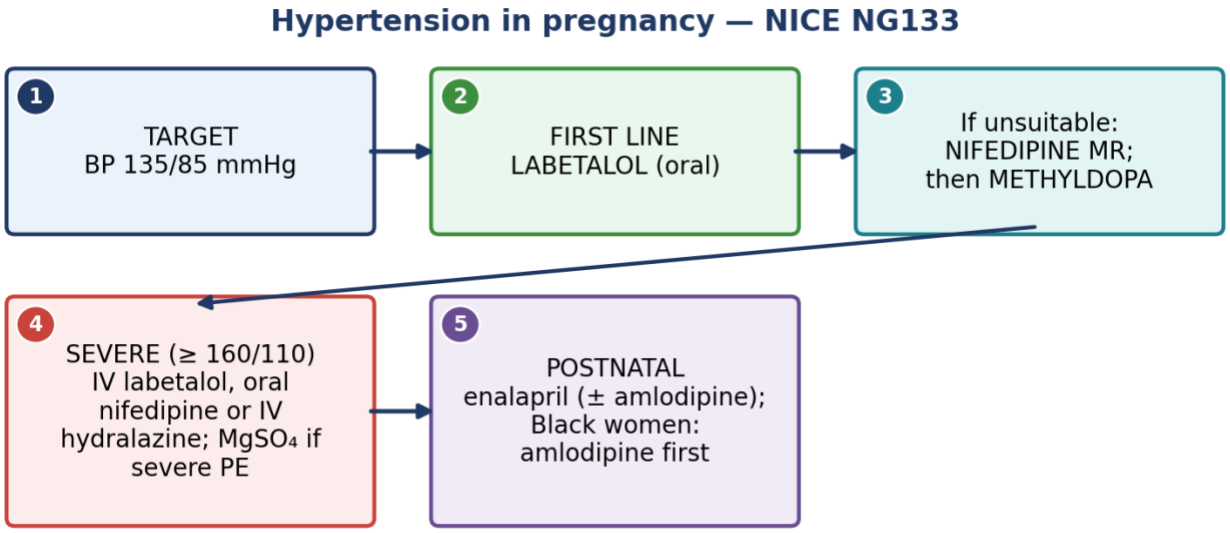


Figure 382.2 — NICE NG133 approach

- Pre-conception: stop ACEi/ARBs and thiazides (or within 2 days of positive test); switch to labetalol/nifedipine/methyldopa.
- **Severe hypertension (≥ 160/110)**: treat urgently — oral labetalol/nifedipine or IV labetalol/hydralazine (with fluid preload ≤ 500 mL), aim < 150/80–100
  - Consider $MgSO_4$ and delivery planning.
- Aspirin 75–150 mg from 12 weeks for women at high risk of pre-eclampsia.
- **Postnatal**: enalapril (+ amlodipine), labetalol/atenolol
  - Black African/Caribbean women — nifedipine/amlodipine first
  - Methyldopa stopped (depression).

382.3 Must-know summary

■ EXAM TIP

- Labetalol first line; nifedipine second (or in asthma); methyldopa third.
- Severe: IV labetalol, oral nifedipine, IV hydralazine; $MgSO_4$ for severe PE.
- Avoid ACEi/ARBs, diuretics, atenolol in pregnancy.
- Postnatal: enalapril/amlodipine — breastfeeding compatible.

■ MNEMONIC / MEMORY AID

'Labetalol Leads, Nifedipine Next, Methyldopa Last'.