

12.3.3.2.3. Severe hypertension (BP $\geq 160/110$ mmHg). In severe hypertension, assessment and gradual BP reduction to $<160/110$ mmHg is mandatory in a hospital setting. Continuous cardiotocographic monitoring is also compulsory. The selection of antihypertensive drugs and the route of administration depend on initial diagnosis, expected delivery time, presence or absence of pre-eclampsia, and the preferences and experience of the attending physicians.^{43,611} Recent comprehensive meta-analyses comparing commonly used antihypertensive drugs (e.g. oral nifedipine, labetalol, methyldopa) (Figure 12C) showed they had similar efficacy in lowering BP in severe hypertension in pregnancy, with nifedipine showing superiority in some studies (see Section 5.2.6).^{43,253,254,611,615} Nifedipine also has the advantage of wider distribution, availability, and lower pricing. Available data showed that hydralazine is less effective than other drugs and is associated with more side effects.⁶¹⁶ Hydralazine is therefore a second-line option to be used only if other drugs are not available.

In cases of pre-eclampsia with severe features, persistent severe hypertension, or recurrent severe hypertension despite orally administered agents, i.v. administration of labetalol (or nicardipine) is advised. Intravenous urapidil can also be used but may not be available in all countries.^{611,617,618} Sodium nitroprusside is the drug of last resort because prolonged treatment is associated with an increased risk of foetal cyanide poisoning.⁶¹⁹ The drug of choice when pre-eclampsia is associated with pulmonary oedema is nitroglycerine (glyceryl trinitrate), given as an i.v. infusion of 5 µg/min, gradually

increasing every 3–5 min to a maximum dose of 100 µg/min, in combination with diuretics.^{43,611}

12.3.4. Hypertension and delivery

A recent randomized controlled trial from the United Kingdom found that once a diagnosis of pre-eclampsia was made in women with late pre-term pre-eclampsia (34–37 weeks), there was a lower rate of maternal morbidity and less severe maternal hypertension when delivery was planned to occur within the next 48 h.⁶²⁰ However, a greater proportion of neonates were admitted to the neonatal intensive care unit compared to mothers who were managed from an earlier stage. Decisions around timing of delivery should be individualized considering both maternal and foetal well-being. If well managed hypertension alone, delivery should be planned around 39 weeks of gestation.

When choosing the mode of delivery, the clinical scenario should take into consideration the current gestational age and a full foetal assessment, as well as the preference of the mother. If induction of labour is to be considered, continuous foetal monitoring is required. Women with severe pre-eclampsia benefit from neuraxial anaesthesia to reduce the hypertensive response to pain. Additionally, an epidural will provide adequate anaesthesia should a caesarean delivery be required.

After delivery, methyldopa should be avoided due to the risk of post-partum depression. Methyldopa should be stopped within 2 days after delivery and changed to an alternative treatment.

Recommendation Table 13 — Recommendations for hypertensive disorders and pregnancy (see Evidence Tables 12–17)

Recommendations	Class ^a	Level ^b
It is recommended to aim for systolic BP <140 mmHg and diastolic BP <90 mmHg in pregnant women. ^{583,585,609}	I	B
Systolic BP ≥ 160 mmHg or diastolic BP ≥ 110 mmHg in a pregnant woman is an emergency, and treatment in a hospital setting is recommended. ^{43,584}	I	C
Low-dose aspirin (75–150 mg daily) is recommended in women at moderate or high risk of pre-eclampsia (i.e. at least one high-risk factor or two moderate-risk factors for pre-eclampsia) from weeks 12 to 36/37. ^{610,621,622}	I	A
In women with gestational hypertension, initiation of drug treatment is recommended at systolic BP ≥ 140 mmHg or diastolic BP ≥ 90 mmHg. ^{583–585,609}	I	B
Methyldopa is recommended for the treatment of hypertension in pregnancy. ^{623,624}	I	B
Labetalol, metoprolol, and dihydropyridine CCBs are recommended for the treatment of hypertension in pregnancy. ⁶²³	I	C
In severe hypertension, drug treatment with i.v. labetalol, urapidil, nicardipine, or oral short acting nifedipine or methyldopa is recommended for acute reduction in blood pressure. ^{625,626} Intravenous hydralazine is a second-line option.	I	C
In pre-eclampsia associated with pulmonary oedema, nitroglycerine given as an i.v. infusion is recommended. ⁶²⁷	I	C
In women with pre-eclampsia without severe features, delivery is recommended at 37 weeks. ^{620,628}	I	B
It is recommended to expedite delivery in women with pre-eclampsia associated with adverse markers such as haemostatic disorders. ⁶²⁹	I	C
In women with gestational hypertension, delivery is recommended at 39 weeks. ^{620,628}	I	B
Ambulatory BP or home BP monitoring should be considered to exclude white-coat and masked hypertension, which are common in pregnancy.	IIa	C
Home BP monitoring may be considered as an adjunct to office BP measurements in pregnant women to detect new-onset hypertension or for monitoring BP control. ^{595,596}	IIb	B

BP, blood pressure; CCB, calcium channel blocker; i.v., intravenous.

^aClass of recommendation.

^bLevel of evidence.

^cOffice BP measurements.