• In patients with ischaemic stroke not receiving re-perfusion treatment and BP of ≥220/110 mmHg, BP should be carefully lowered by approximately 15% during the first 24 h after stroke onset.[956–960]	IIa	C
In patients with intracerebral haemorrhage, immediate BP lowering (within 6 h of symptom onset) should be considered to a systolic target 140–160 mmHg to prevent haematoma expansion and improve functional outcome.[948,949]	IIa	A
In patients with intracerebral haemorrhage presenting with systolic BP ≥220 mmHg, acute reduction in systolic BP >70 mmHg from initial levels within 1 h of commencing treatment is not recommended.[950,951,960–963]	III	B

BP, blood pressure; TIA, transient ischaemic attack.
[a]Class of recommendation.
[b]Level of evidence.

Recommendation Table 33 — Recommendations for acutely managing blood pressure in patients with severe hypertension in pregnancy and pre-eclampsia (see Evidence Table 46)

Recommendation	Class[a]	Level[b]
In pre-eclampsia or eclampsia with hypertensive crisis, drug treatment with i.v. labetalol or nicardipine and magnesium is recommended.[971]	I	C
In pre-eclampsia or eclampsia associated with pulmonary oedema, nitroglycerin given as an i.v. infusion is recommended.[242]	I	C
In severe hypertension in pregnancy: • drug treatment with i.v. labetalol, oral methyldopa, or oral nifedipine is recommended. Intravenous hydralazine is a second-line option.[666–668,969,971]	I	C

i.v., intravenous.
[a]Class of recommendation.
[b]Level of evidence.

10.4. Acute blood pressure management in pre-eclampsia and severe hypertension in pregnancy

10.4.1. Pre-eclampsia

Pre-eclampsia is discussed in *Section 9*. Here we focus on its management in the acute setting. Pre-eclampsia is cured by delivery. Most international societies, including the ESC, recommend an intensive approach to BP lowering in pre-eclampsia.[89,964,965] In women with pre-eclampsia and severe hypertension, immediately reducing systolic BP to <160 mmHg and diastolic BP to <105 mmHg using i.v. labetalol or nicardipine (with administration of magnesium sulfate if appropriate and consideration of delivery if appropriate) was recommended in the 2018 ESC/ESH Guidelines on the management of arterial hypertension and the 2022 ESC Guidelines for management of cardiovascular disease in pregnancy.[1,89] The objective of treatment is to lower BP within 150–180 min.

Magnesium sulfate [4 g i.v. over 5 min, then 1 g/h i.v.; or 5 g intramuscularly (i.m.) into each buttock, then 5 g i.m. every 4 h] is recommended for eclampsia treatment but also for women with pre-eclampsia who have severe hypertension and proteinuria or hypertension and neurological symptoms or signs.[966] There is a risk of hypotension when magnesium is given concomitantly with nifedipine.[967] If BP control is not achieved by 360 min despite two medications, consulting critical care is recommended for intensive care unit admission, stabilization, and delivery (if appropriate).[966] Since plasma volume is reduced in pre-eclampsia, diuretic therapy should be avoided.

10.4.2. Severe acute hypertension in pregnancy

Severe hypertension in pregnancy (without pre-eclampsia) may necessitate acute BP-lowering therapies. Severe hypertension in pregnancy is defined in general as systolic BP of >160 mmHg and diastolic BP of >110 mmHg and is associated with adverse maternal and peri-natal outcomes independent of pre-eclampsia and potentially of the same magnitude as eclampsia itself.[89,968]

There are differences in rate of BP control between i.v. labetalol and i.v. hydralazine in severe hypertension in pregnancy.[969] While evidence is conflicting,[667,668] hydralazine may be associated with more peri-natal adverse events than other drugs.[970] Nifedipine seems to provide lower BP with lower rates of neonatal complications than labetalol.[971]

10.5. Peri-operative acute management of elevated blood pressure

Details are provided in the ESC Guidelines on cardiovascular assessment and management of patients undergoing non-cardiac surgery.[972] Peri-operative hypertension, hypotension, and BP variability are associated with haemodynamic instability and poor clinical outcomes for patients undergoing surgery.[973] Pre-operative risk assessment for BP management, therefore, should involve assessing for underlying end-organ damage and comorbidities.[974] Postponing necessary non-cardiac surgery is not usually warranted for patients with minor or moderate elevations in BP, as they are not at higher CVD risk.[130,975]

Avoiding large fluctuations in BP in the peri-operative course is important, and planning a strategy for a patient should account for the baseline office BP.[974–977]

There is insufficient evidence for reduced or increased peri-operative BP targets compared to usual care BP targets to lower peri-operative events.[978] No specific measure of BP appears better than any other for predicting risk of peri-operative events.[975]

10.5.1. Blood pressure-lowering drugs in the peri-operative phase

Routine initiation of a beta-blocker peri-operatively is not necessary.[979]

Pre-operative initiation of beta-blockers in advance of high-risk, non-cardiac surgery may be considered in patients who have known coronary artery disease or myocardial ischaemia[980] or two or more significantly elevated clinical risk factors in order to reduce the incidence of peri-operative myocardial infarction.[979] Peri-operative continuation of beta-blockers is recommended for patients currently taking beta-blockers.[981]

Some studies suggest that continued use of ACE inhibitors is associated with a higher risk of peri-operative hypotension and subsequent end-organ damage including kidney injury, myocardial infarction, and stroke.[982] In the Prospective Randomized Evaluation of Preoperative Angiotensin-Converting Enzyme Inhibition (PREOP-ACEI) trial, transient pre-operative interruption of ACE inhibitor therapy was associated with a decreased risk of intra-operative hypotension.[983] A subsequent systematic review also showed a decreased risk of intra-operative hypotension with withholding ACE inhibitors/ARBs before surgery, but no association