

NCA protocol for acute blood pressure management in spontaneous ICH

1 Acute treatment target and monitoring

Time since onset	Start treatment if	Lower SBP within 1 h to
< 6 h	SBP > 150 mmHg	130-140 mmHg
> 6 h or unknown	SBP > 180 mmHg	130-160 mmHg

BP Monitoring

every 15 min for 1 h
then hourly up to 24 h

If BP above threshold for treatment repeat after 2 min before proceeding to step 2

2 IV GTN—first 30 min

1. Start GTN (1 mg/ml) at 1.5 ml/h
2. Increase rate by 1.0 ml/h every 5 min until target achieved
3. Once target reached continue infusion and check BP as per protocol
4. If BP falls to < 130 mmHg, stop GTN infusion
5. Restart if SBP > target in first 24 h, initially at 1.5 ml/h
6. Titrate by 0.5-1.0 ml/h to keep below target but > 130 mmHg
7. If target reached, proceed to step 5 (Maintenance)

BP Monitoring

set monitor for automatic BP every 5 min
If treatment target reached:
every 5 min for 15 min
then every 15 min for 1h
then hourly up to 24 h

If target not achieved by 30 min, proceed to step 3 (labetalol)

3 Labetalol—30 to 60 min

1. If contraindication to labetalol (see box), proceed directly to step 4
2. Continue GTN at rate achieved (typically 7.5 ml/h)
3. If HR remains > 60 bpm, repeat bolus dose every 5 min
4. 10 mg for first 2 doses, then 20 mg for 3rd dose
5. Further doses of 20-40 mg, maximum cumulative bolus dose 300 mg
6. If target reached, proceed to step 5 (Maintenance)
7. Consider labetalol infusion at 1-20 ml/h (5 mg/ml), if required

Labetalol is contraindicated in asthma, bradycardia (< 60 bpm), uncontrolled heart failure, untreated pheochromocytoma. Caution in COPD. Avoid concomitant use with verapamil and caution with diltiazem or digoxin

If target not achieved by 60 min, proceed to step 4 (Critical Care)

4 Critical Care input —after 60 min

1. Consider referral to HDU/ICU for further treatment
2. Consider IV nicardipine as next treatment if needed, but **only** with critical care input
3. Start at 5 mg/h and increase by 1 mg/h every 15 min. Max 15 mg/h

5 Maintenance—during rest of admission

Management during first 24 hours:

1. Continue/restart IV infusion if SBP above acute treatment target (as per step 1)
2. Commence enteral (oral/NGT) treatment as soon as possible

Management after 24 hours: Treatment target for all patients is systolic BP < 130 mmHg

1. Aim to wean and stop IV antihypertensives by 48-72 h
2. Use enteral (oral/NGT) treatment to achieve BP target of < 130/80 in ALL PATIENTS
3. Restart all antihypertensives taken prior to ICH and additional treatment to be added, as required

BP Monitoring

hourly up to 24 h
Then every 4-6 h if patient is stable