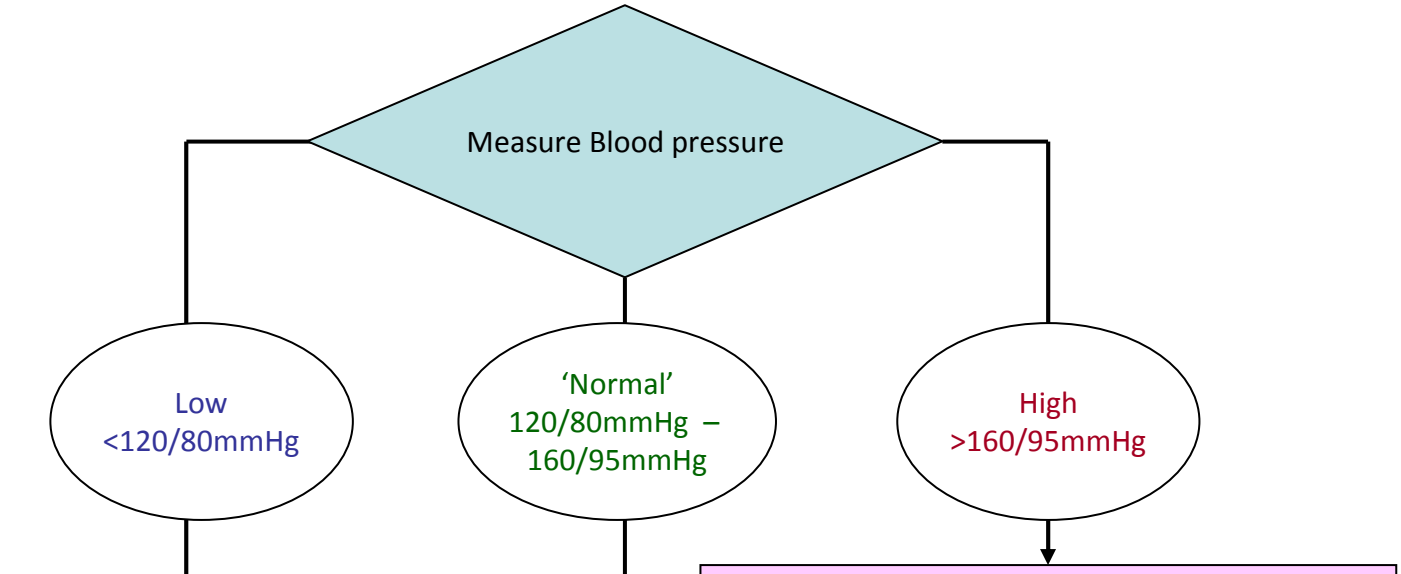
Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Title: Management of Hypertension in Acute Stroke. Care Pathway Version: 1.2

STROKE



- Withhold antihypertensive treatment.
- Review for other drugs with hypotensive effects.
- Give IV Fluids (ideally NaCl 0.9%).
- It is recommended that low blood pressure secondary to hypovolaemia or associated with neurological deterioration in acute stroke should be treated with volume expanders.

- Optimise environment, bed rest, analgesia if appropriate.
- No pharmacological intervention needed.
- Leave current antihypertensive therapy unchanged.

CAUTION: Do not use sublingual GTN spray or sublingual Nifedipine to lower Blood Pressure in any circumstance.
If in doubt call senior medical staff.

Moderate Blood Pressure Elevation (160/95mmHg to 220/120 mmHg)

- Optimise environment, bed rest, analgesia if appropriate.
- Out rule other causes e.g. urinary retention
- No acute pharmacological intervention needed unless symptomatic but Blood pressure reduction to 180/105mmHg indicated in people who are candidates for thrombolysis.
- Review drugs which may elevate blood pressure.

Severe hypertension (>220/120 mmHg or >180/100 mmHg in proven intracerebral haemorrhage).

- Optimise environment, bed rest, analgesia if appropriate.
- Recheck BP after 30 and 60 minutes unless symptomatic or for thrombolysis.
- If BP remains elevated cautiously lower BP. Agent of choice would be an oral beta-blocker or a long–acting calcium channel blocker (e.g. Amlodipine 10mg per day).
- If the patient is unable to swallow, has symptoms of accelerated hypertension*or is otherwise considered suitable for thrombolysis consider intravenous therapy.†

Approved by: National Stroke Project Team and Working Group including national clinical leads for stroke Profs. Peter Kelly & Joe Harbison
Approval Date: April 2012
Review Date: April 2014
Contact person for queries/feedback: carmel.brennan@hse.ie

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***Background:**
Patients admitted following stroke are frequently found to have hypertension. This can predate the stroke or may be a consequence of the stroke and blood pressure frequently drops spontaneously in the days following acute stroke.

There is little current evidence for benefit in the routine lowering of blood pressure following acute stroke, and rapid lowering may even be harmful (as in some strokes cerebral auto-regulation can fail particularly in the are of the penumbra and cerebral blood flow becomes dependent on blood pressure).

There are circumstances however where consensus exists that blood pressure should be lowered following acute stroke, particularly where symptoms are thought to result acutely from the blood pressure (accelerated hypertension) e.g. hypertensive encephalopathy (headaches, seizures, confusion, somnolence or stupor), retinal haemorrhages, acute renal failure, left ventricular failure or aortic dissection, where the patient is being considered for thrombolytic therapy, or in circumstance of intracerebral haemorrhage where reduction in blood pressure is associated with a reduction in thrombus volume.

The following intravenous therapies can be used in lowering blood pressure in acute stroke:

•Bolus Labetolol (20mg/ 2 minutes) can be used to produce a modest reduction in BP in patients for thrombolysis.
•To maintain blood pressure Intravenous IV nitrate (e.g. Glyceryl Trinitrate (GTN) infusion starting at 0.6 mg per hour and titrating up) or IV Labetalol 15mg per hour, gradually increased to 120mg per hour may be used.

The aim is to lower diastolic BP to 100-110 mmHg over not less than 24 hours. Continuous monitoring of blood pressure should be used whilst patients are receiving IV antihypertensive therapy

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