20. Hypertension Algorithm

This clinical pathway is intended to supplement, rather than substitute for, professional judgment and may be changed depending upon a patient's individual needs. Failure to comply with this pathway does not represent a breach of the standard of care.



- Monitor, support ABCs
- Check vital signs (BP, PR, RR, SPO₂, T^oC, **RBS**)
- Start Oxygen IF SPO₂ < 94%. Maintain SPO₂ \geq 94%
- Perform brief, targeted history and physical exam
- Obtain/review 12-lead ECG (if indicated)
- Send samples for FBC, UEC, TSH and Urinalysis for proteinuria
- DO NOT ADMINISTER ORAL ANTIHYPERTENSIVES (e.g. nifedipine) TO LOWER THE BLOOD PRESSURE IN THE ED.
- Allow patient to rest awaiting results. Repeat BP checks hourly.

Are there any features of progressive or impending end organ damage (especially if BP > 180/110 mmHg)?

a) Neurological

- Cerebral vascular accident/cerebral infarction
- Hypertensive encephalopathy
- Subarachnoid haemorrhage
- Intracranial haemorrhage

b) Cardiovascular

- Acute pulmonary oedema
- Congestive heart failure
- Myocardial ischemia/infarction
- Acute left ventricular dysfunction
- Aortic dissection

c) Other

- Acute renal failure/insufficiency
- Retinopathy
- Pre-eclampsia/Eclampsia
- Micro angiopathic haemolytic anaemia

Headache/Epistaxis is **NOT** a hypertensive emergency, no matter how high the blood pressure. It is likely the headache/epistaxis is causing the hypertension, not the other way around. Treat the headache/epistaxis and the pressure will come down.

No Yes

Known Hypertensive – Resume regular treatment; if unknown, low dose thiazide type diuretic for most; may consider ACE inhibitor, ARB, β -blocker, CCB. Follow-up as below (see JNC VIII Guidelines)

New Onset Hypertension - Final BP prior to discharge

- BP > 160/100 low dose thiazide type diuretic for most; may consider ACE inhibitor, ARB, β-blocker, CCB. (see JNC VIII Guidelines). Follow-up as below
- **BP** < 160/100 Follow-up as below

Daily BP checks at nearest clinic and follow-up in a Medical Clinic in 1 week with BP chart

See 21. Hypertensive Emergencies Algorithm