

18. 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.

BP > 140/90mmHg

- Monitor, support ABCs
- Check vital signs (BP, PR, RR, SPO₂, T° C, **RBS**)
- Start Oxygen **IF** SPO₂ < 94%. Maintain SPO₂ ≥ 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

See 19. Hypertensive Emergencies Algorithm

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