Hypertensive Emergencies

Signs and Symptoms

- SBP > 220 and/or DBP > 120
- Headache
- Nosebleed
- Blurred vision
- Dizziness
- Nausea/vomiting

History

- **Any signs and symptoms of stroke proceed directly to Stroke Protocol**
- Cardiac
- Pregnancy
- Medications (including use of sexual enhancement medications)

Differential

- Stroke
- Head injury
- Pre-eclampsia
- Drug abuse (cocaine, amphetamine)
- Medication noncompliance
- Physical or emotional stress (pain, anxiety)
- Renal failure

Pediatric Pearls

- True Hypertensive Emergencies are rare in pediatrics; consult Medical Control Physician for guidance.

WARNINGS

- *Do not administer* **Nitroglycerin (Nitrostat®)** if patient has taken any sexual enhancement drugs in last 48 hours or has taken **Revatio® (Sildenafil)** for Pulmonary Hypertension.
- **Labetalol (Trandate®)** is contraindicated if pulse is below 60, history of active asthma/COPD.

Care: Adults only

B E I P

Follow General Directive #3, Orders for all Patients.

B E I P

Repeat initial abnormal blood pressure in opposite arm to verify accuracy. Perform Cincinnati Stroke Scale exam. If suspect stroke, consult with medical control ***prior to*** treatment of BP in stroke patients.

E I P

Establish IV of **Normal Saline** at a KVO rate.

E

If SBP ≥220 and/or DBP ≥120, Administer **Nitroglycerin (Nitrostat®)** 0.4mg SL Repeat dose if BP does not improve by 10% in 5 min.

(E)

Administer **Furosemide (Lasix®)** 40 mg slow IV

I P

Initiate cardiac monitoring (consider 12 lead if acute coronary syndrome is suspected).

I P

If SBP ≥ 220 and/or DBP ≥ 120, Administer **Labetalol (Trandate®)** 10 mg given slow IV over 2 min. If inadequate response 10 min. after 1st dose, administer 2nd dose of **Labetalol (Trandate®)** 20 mg slow IVP over 2 min.

I P

Furosemide (Lasix®) 40 mg slow IV after 2nd dose of **Labetalol (Trandate®)** if inadequate response to Labetalol doses.

I P

If unable to obtain IV, administer **Nitroglycerin (Nitrostat®)** 0.4mg SL.

Pearls

- Never treat hypertension on only one set of vitals.
- Use manual cuff to confirm abnormal blood pressures.
- Consider treating pain and anxiety first as this may reduce blood pressure substantially.
- Hypertension may be associated with pulmonary edema, seizures, chest pain and altered level of consciousness.
- Transport with head elevated when appropriate.
- Abrupt or excessive decreases in blood pressure should be avoided.
- Fluid bolus may be necessary if drop in BP is excessive (more than 15%).

Performance Indicators

- Goal is 10-15% reduction in blood pressure with treatment.
- Frequent reassessment of patient vitals.
- Cincinnati Stroke Scale exam performed and documented.