Drug Name: **Phenylephrine**
Trade Name: **Neosynephrine, Vazculep**

REVISED: **November 1, 2018**

Class:

- Nasal decongestant
- Sympathomimetic amine
- Vasopressor (Alpha 1 agonist)

Mechanism of Action:

- When used intravenously, phenylephrine stimulates systemic alpha-adrenergic receptors causing potent vasoconstriction with minimal chronotropic or inotropic effects.

Indications:

- Hypotension
- Shock

Contraindications:

- Hypersensitivity

Precautions:

- Pregnancy category C

Dosage:

Doses are highly variable and based on institutional guidelines and patient laboratory values. Double check orders with transferring physician.

- **Push Dose pressor**
  - ***Adult 50 -200 mcg every 2-10 minutes PRN for hypotension***

- ***Infusion***
  - **100-180 mcg/min loading dose, then 40-60 mcg min maintenance infusion.**

Onset:

- IV/IO: 1 minute

Duration:

- 10-20 minutes (IV)

Side Effects:

- HTN
- Tachy arrythmias at high doses (mechanism unknown)
- Restlessness
- Tremors
- Dizziness
- Headache

Interactions:

- ***Incompatible in same line as insulin***

PEARLS:

Observe closely and frequently for extravasation. Stop infusion if there is any concern of this occurring.

- Typically phenylephrine are *highly concentrated* and require dilution prior to administration.
- When given as an infusion, phenylephrine should be administered on a pump.
  - Commonly prepared in a 10 mg/250 ml (NS or D5W) solution for a 40 mcg/ml concentration, though local practices may vary.
  - Some institutions report significantly higher concentrations (up to 400 mcg/ml).
  - **Always double check concentrations with transferring staff.**

- Phenylephrine may be also ordered as a bolus (push dose pressor). Confirm line patency prior to admin. Administer strictly as ordered.

  - **Push dose concentrations are often different from infusion concentrations.**
  - Common example: 10 mg/100 ml (100 mcg/ml), administer in 0.5-2 ml boluses.
  - These 'push-dose pressors' are often used in rersponse to short-lived hypotension, e.g., post intubation or during procedural sedation. They also can act as a bridge to infusion vasopressors

- These infusions often are co-administered with other vasopressors
- **Commonly but not required to be administered via central line.**