

PROTOCOL FOR: Phenylephrine (Neosynephrine): IV Administration

- POLICY:** 1. This drug is to be administered only in critical care areas where the patient is on a cardiac monitor, and must be administered on an infusion pump, using drug guardrails.

INDICATION: Severe hypotension or shock (Phenylephrine is a potent alpha-agonist, vasoconstrictive agent)

DESIRED PATIENT

OUTCOME: Patient will achieve an increase in blood pressure to specified parameters, and will not suffer adverse effects from phenylephrine.

CLINICAL

ASSESSMENT AND

CARE: A. Prior to Starting Infusion:

1. Validate the order for solution concentration, infusion start rate and BP parameters. Orders should reflect dosage in mcg/min.

Standard concentrations are:

Single: 10 mg/250 ml D₅W or NS = 40 mcg/ml

Double: 20 mg/250 D₅W or NS = 80 mcg/ml

Quadruple: 40mg/250 D₅W or NS = 160 mcg/ml

2. Check BP, HR, hemodynamic parameters (if available) and monitor urine output.
3. Place patient on continuous noninvasive BP monitoring, or use Arterial-line. Explain to patient:
 - a) need for frequent BP monitoring
 - b) need to report any changes in S/S
4. Assess peripheral circulation prior to starting infusion.
5. A central line is preferable for infusion. If using peripheral access is used, risk of tissue sloughing is great if extravasation should occur.
6. Place patient in position of comfort, but maintain HOB no higher than 30°.

B. Beginning the Infusion:

1. Begin infusion at initial dose per MD/LIP order (initial rate is usually 10 mcg/min), and titrate by **20 mcg/minute** every **2 minutes** to a maximum dose of **180 mcg/minute**.
2. Stay at the bedside with the patient for initial titration. Assess patient response: HR, B/P, mentation, other S/S of increased perfusion.
3. **As the BP stabilizes, the dose can usually be decreased to 40-60 mcg/minute.** Adjust to maintain an adequate BP per MD/LIP ordered parameters - usual goal is SBP 100-120 or MAP > 60.

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C. Care During the Infusion:

1. Reassess VS with **each dose change** during titration, until desired effect is achieved.
2. VS measurements may be advanced to **every 1 hour** once stable and drip not being titrated.
3. Assess peripheral circulation and IV site with systems assessment, per unit guidelines.

D. Discontinuation:

1. The infusion rate should be slowed gradually in a manner similar to initial titration and abrupt withdrawal avoided.
2. Assess VS per MD/LIP order/unit standards once the infusion has been discontinued.

E. Notify MD/LIP:

1. If specified increase in BP is not achieved at a maximum dose of 180 mcg/minute.
2. Notify MD/LIP if extravasation of peripheral infusion site occurs. Phentolamine may be ordered - 5 mg/9 mls NS is used to infiltrate the IV site - administer per MD/LIP order, as soon as possible.

APPROVAL: Nursing Standards Committee
ICU Standards Committee
Pharmacy Department

EFFECTIVE DATE: 8/97

REVISION DATES: 8/00, 10/03, 3/08, 5/09

REVIEWED DATES: 9/08