

## W. Norepinephrine (Levophed®)

- I. Classification
  - Sympathomimetic agent, potent vasoconstrictor, inotrope
- II. Actions
  - Stimulates alpha receptors in the peripheral vasculature, producing vasoconstriction-related increase in systemic blood pressure and coronary artery blood flow
  - Concurrent beta receptor stimulation may produce increases in heart rate and mild bronchodilation, though norepinephrine is a weaker beta stimulator than dopamine
- III. Indications
  - Severe hypotension post cardiac arrest (Cardiogenic shock)
  - Non-traumatic shock (Cardiogenic or distributive shock)
  - Septic Shock
- IV. Contraindications
  - Hypovolemia
  - Hypertension
- V. Adverse Effects
  - A. Cardiovascular
    - Palpitations, Arrhythmia exacerbation (tachycardia), Reflex Bradycardia
  - B. Neurological
    - Headache
  - C. Other
    - Lactic acidosis, Tissue necrosis
- VI. Administration
  - A. Adult
    - 4 mg/250 ml NS : Manually mix 4 mg norepinephrine in 250 ml normal saline (16 mcg/ml) OR 8mg/500 ml NS : Manually mix 8 mg norepinephrine in 500 ml normal saline (16 mcg/ml). Start drip at 30 drops/min IV/IO (8 mcg/min) with 60 drop/ml chamber. Titrate every 5 min to SBP of 100 mmHg and signs of adequate perfusion OR a maximum rate of 60 drops/min (16 mcg/min).
  - B. Pediatric : No pediatric administration
- VII. Warning
  - A. Use with caution with MAOIs and TCAs, may cause prolonged hypertension.
  - B. In elderly patients, avoid administration into leg veins if possible.
  - C. Protect from light.