REGIONAL PEDIATRIC PARENTERAL DRUG MONOGRAPH

GENERIC NAME

norepinephrine

Effective Date: Dec 2011 **Revised Date:** Dec 2022	CLASSIFICATION **Inotropic Agent** **Vasopressor Agent**	OTHER NAMES **Levophed**	PAGE 1 of 2

ADMINISTRATION POLICY:

IV Infusion – Administration restricted to nurses experience in ED/CARDIAC ROOM/ICU/PACU

RECONSTITUTION/DILUTION/ADMINISTRATION:

Available as: 1 mg/mL – 4 mL single vial dose, 4 mg/250 mL premixed bag (0.016 mg/mL)

IV Infusion: Pump Library: *Premixed solution preferred when available*

norepinephrine pediatrics HI

Drug Library	Dose Rate	Short Name	Care Unit
Yes	mcg/kg/min	nore32 p	Pediatric
Drug	**Diluent**	**Final Volume (VTBI)**	**Final Concentration**
32 mg (32 mL of 1 mg/mL)	250 mL NS	282 mL	0.114 mg/mL
Clinical Advisory: High Alert			
Soft Low Dose Limit: 0.05 mcg/kg/min		Soft High Dose Limit: 2 mcg/kg/min	

norepinephrine pediatrics LO

Drug Library	Dose Rate	Short Name	Care Unit
Yes	mcg/kg/min	nore4 p	Pediatric
Drug	**Diluent**	**Final Volume (VTBI)**	**Final Concentration**
4 mg premixed	250 mL premixed bag	250 mL	0.016 mg/mL
Clinical Advisory: High Alert			
Soft Low Dose Limit: 0.05 mcg/kg/min		Soft High Dose Limit: 2 mcg/kg/min	

Drug Library	Dose Rate	Short Name	Care Unit
Yes	mcg/kg/min	nore4 p	Pediatric
Drug	**Diluent**	**Final Volume (VTBI)**	**Final Concentration**
4 mg (4 mL of 1 mg/mL)	250 mL NS or D5W (remove 4 mL)	250 mL	0.016 mg/mL
Clinical Advisory: High Alert			
Soft Low Dose Limit: 0.05 mcg/kg/min		Soft High Dose Limit: 2 mcg/kg/min	

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DOSAGE:

Hypotension, Shock:

Infusion: Initial: 0.05 to 0.1 mcg/kg/minute
Increase by 0.05 to 0.1 mcg/kg/minute every 3 to 15 minutes until desired clinical response achieved

Range: 0.05 to 2 mcg/kg/minute

Maximum rate: 2 mcg/kg/minute

Maximum concentration: Peripheral IV, IO, UC: 50 mcg/mL (0.05mg/mL)

STABILITY/COMPATIBILITY:

Stability of Final Admixture: 24 hours at room temperature

Compatibility: Compatible in normal saline, D5W, combination dextrose-saline solutions, Lactated Ringers

PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:

- CV: Tachycardia, ectopic beats, dysrhythmias, conduction abnormalities, hypertension, anginal pain
- GI: Nausea, vomiting
- Neuro: Headache, anxiety, piloerection
- Renal: Decreased urine output (especially with dosages greater than 10 mcg/kg/minutes), azotemia
- Local: Vasoconstriction, venous streaking, gangrene of extremities, extravasation with tissue necrosis
- Other: Dilated pupils; allergic reactions in patients sensitive to sulfites
- Correct hypovolemia preferable before initiating norepinephrine
- Increased risk of gangrene of extremities secondary to vasoconstriction with peripheral IV or UC administration, high dosages (greater than 3 mcg/kg/minute), or in patients with cold injury or occlusive vascular disease (even at low dosages)
- phenytoin: Concurrent administration (especially rapid administration) – hypotension, bradycardia, seizures
- Tricyclic antidepressants: increase pressor response to direct acting sympathomimetic agents such as norepinephrine; increase risk of dysrhythmia
- Umbilical catheters: Tip of catheter must be in inferior vena cava (IVC); do not administer vasoconstrictive agents via a UC when the tip of the catheter is below the liver or in the portal venous circulation due to significant risk of local vasoconstriction and hepatic necrosis
- MAO inhibitors (including linezolid): Severe hypertension during concurrent administration; start at 0.05 mcg/kg/minute and increase every 15 to 30 minutes
- Contraindicated with sensitivity to sulfites
- Uncorrected tachydysrhythmias or ventricular fibrillation

ADDITIONAL NOTES AND NURSING CONSIDERATIONS:

Required monitoring: Continuous cardiac and BP monitoring

- Peripheral administration into a large vein may be used only as an interim measure until central venous access is established