Norepinephrine

Indications: Hypotension, septic shock, shock persisting after adequate fluid volume replacement

Contraindications: Known allergy, **hypovolemic shock from hemorrhage except for OLMC approval.**

ADULT DOSING			
Indication	**Dose**	**Rate & Route**	**Note**
Hypotension – or – Septic shock – or – Persistent shock after volume replacement	2 – 12 mcg/min	IV	Titrate to a MAP > 65
ADULT DOSING			

PEDIATRIC DOSING			
Indication	**Dose**	**Rate & Route**	**Note**
NONE			
PEDIATRIC DOSING			

Adverse/Side Effects

Systemic: Ischemic injury due to potent vasoconstrictor action and tissue hypoxia.
Cardiovascular: Bradycardia, probably as a reflex result of a rise in blood pressure, arrhythmias, tachycardia
Nervous: Anxiety, transient headache.
Respiratory: Respiratory difficulty.
Skin and Appendages: Extravasation necrosis at injection site. Gangrene of extremities has been rarely reported.
Overdoses or conventional doses in hypersensitive persons (e.g., hyperthyroid patients) cause severe hypertension with violent headache, photophobia, stabbing retrosternal pain, pallor, intense sweating, and vomiting.

Class

Sympathomimetic: Alpha/Beta agonist

Mechanism of Action

Norepinephrine acts predominantly on alpha-adrenergic receptors to produce constriction of resistance and capacitance vessels, thereby increasing systemic blood pressure and coronary artery blood flow. Norepinephrine also acts on beta1-receptors, although quantitatively less than either epinephrine or isoproterenol. In relatively lower doses, the cardiac-stimulant effect of norepinephrine is predominant; with larger doses, the vasoconstrictor effect predominates. Similar to epinephrine, norepinephrine has direct agonist effects on effector cells that contain alpha and beta receptors.

Onset of Action Rapid **Peak Effect** 1 – 2 minutes **Duration of Action** 1 – 2 minutes

Norepinephrine Infusion and Dosing Volume

ADULT DOSING						
Step 1: Determine concentration and prepare medication.	Mix 4 mg (4 ml) of Levophed in 250 ml NS, thus creating a concentration of 16 mcg/ml					
Step 2: Use 60 gtts set and determine infusion rate						
Dose	2 mcg/min	4 mcg/min	6 mcg/min	8 mcg/min	10 mcg/min	12 mcg/min
Drops per minute	8	15	22	30	38	45
ADULT DOSING						