

HEALTHEAST MEDICAL TRANSPORTATION  
MEDICAL OPERATIONS MANUAL

**NOREPINEPHRINE (LEVOPHED)**

**Drug Classification: Nonselective adrenergic agonist**

**BACKGROUND**

**Pharmacodynamics**

This medication functions as a peripheral vasoconstrictor (alpha-adrenergic action), an inotropic stimulator of the heart and dilator of coronary arteries (beta-adrenergic action).

**Indications**

- Cardiogenic shock
- Post ROSC in PEA/Aystolic arrest
- Sepsis/Septic shock unresponsive to infusion of 40 mL/kg of fluids.
- Anaphylactic shock

**Contraindications**

- Known allergy or sensitivity to the medication
- Allergy to sulfites
- Profound hypoxia or hypercarbia

**Cautions**

- May cause severe, long lasting high blood pressure in patients who are taking MAOIs or tricyclic antidepressants.
- Use with caution in patients taking hyperthyroid medications.
- This medication is caustic and will cause tissue necrosis if infiltrated.

**DOSAGE and ADMINISTRATION**

ADULT	PEDIATRICS (less than 60 kg)
1. Administer an infusion starting at 0.1 mcg/kg/min. <sup>1</sup> Titrate up to 0.5 mcg/kg/min to achieve MAP of 65 mmHg or greater. <sup>2</sup> See chart on page 3.	1. Administer an infusion starting at 0.1 mcg/kg/min. <sup>1</sup> Titrate up to 0.5 mcg/kg/min to achieve a MAP of 65 mmHg or greater. <sup>2</sup> See chart on page 3.

**ADVERSE REACTIONS/SIDE EFFECTS**

- Local vasoconstriction, tissue hypoxia
- Hypertension may induce stabbing chest pain, headache, pallor, intense sweating, and/or

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vomiting

- Anxiety
- Necrosis of infiltrated tissues

## NOTES

<sup>1</sup> **Norepinephrine (Levophed)** infusion: Mix 8 mg of **norepinephrine (Levophed)** in a 250 mL bag normal saline (concentration of 32 mcg/mL). Monitor carefully for infiltration at the IV/IO site. Continuous cardiac monitoring is required.

<sup>2</sup> Titrate initially to a heart rate of 100 bpm. After obtaining a full set of vitals, titrate to a MAP of 65 or greater. Do not exceed a heart rate of 130 bpm.

### REFERENCE GUIDELINE:

**2D Pulseless Electrical Activity (PEA)/Asystole**

**2F Post-Resuscitation Care**

**2L Cardiogenic Shock**

**3I Sepsis/Septic Shock**

**5A Allergic Reaction/Anaphylaxis**

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<b>LEVOPHED DRIP CHART</b>					
8 mg in 250 mL NS (60 gtt tubing)					
Dosage mcg/kg/min →	0.1	0.2	0.3	0.4	0.5
↓ Body weight	FLOW RATE IN DROPS/MIN				
22 lbs/10 kg	2	4	6	8	9
33 lbs/15 kg	3	6	8	11	14
44 lbs/20 kg	4	8	11	15	19
55 lbs/25 kg	5	9	14	19	23
66 lbs/30 kg	6	11	17	23	28
77 lbs/35 kg	7	13	18	26	33
88 lbs/40 kg	8	15	23	30	38
99 lbs/45 kg	8	17	25	34	42
<b>110 lbs/50 kg</b>	<b>9</b>	<b>19</b>	<b>28</b>	<b>38</b>	<b>47</b>
121 lbs/55 kg	10	21	31	41	52
132 lbs/60 kg	11	23	34	45	56
143 lbs/65 kg	12	24	37	49	61
154 lbs/70 kg	13	26	39	53	66
<b>165 lbs/75 kg</b>	<b>14</b>	<b>28</b>	<b>42</b>	<b>56</b>	<b>70</b>
176 lbs/80 kg	15	30	45	60	75
187 lbs/85 kg	16	32	48	64	80
198 lbs/90 kg	17	34	51	68	84
209 lbs/95 kg	18	36	53	71	89
<b>220 lbs/100 kg</b>	<b>19</b>	<b>38</b>	<b>56</b>	<b>75</b>	<b>94</b>
231 lbs/105 kg	20	39	59	79	98
242 lbs/110 kg	21	41	62	83	104
Ideal body weight					
	Females			Males	
5'2"	126 lbs/57 kg			139 lbs/63 kg	
5'6"	140 lbs/64 kg			150 lbs/68 kg	
6'	159 lbs/72 kg			169 lbs/77 kg	

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