



# Jackson Hole Fire/EMS

## Operations Manual

Approved by *Will Smith, MD*  
 Signed by: 10314EAF591H46A  
 Will Smith, MD, Medical Director

Approved by *Mike Moyer*  
 Signed by: A95973FD72B479  
 Mike Moyer, Chief

Title: **Medication Protocol:  
Norepinephrine**  
 Division: 17  
 Article: 1.35  
 Revised: June 2025  
 Pages: 2

### **NOREPINEPHRINE (Levophed®) (Medication Protocol)**

**NOT AUTHORIZED**

**EMT-INTERMEDIATE PROVIDERS**

**STANDING ORDER**

**PARAMEDIC PROVIDERS**

**CLASS:** Adrenergic, Catecholamine, Sympathomimetic

**PHARMACOLOGY/ ACTIONS:** Stimulates adrenergic receptors: alpha (peripheral vasoconstriction), beta-1 (inotropic); producing potent vasopressor effects.

**ONSET/DURATION:** Onset: 1-2 minutes  
 Duration: 1-2 minutes

**USE IN FIELD/ INDICATIONS:** Severe Hypotension (adult systolic BP < 70-90 mmHg or MAP<65) - due to cardiogenic, septic, or neurogenic/spinal shock refractory to fluid boluses or when intravascular fluid bolusing is contraindicated.

**CONTRAINdications:** Hypersensitivity, known vascular thrombosis, hypovolemia, tachy-dysrhythmias, hypertension.

**SIDE EFFECTS:** Hypertension, Headache, Anxiety, Dyspnea, Dysrhythmias, Ischemic injury

**DRUG INTERACTIONS:** Use in caution with patients taking known MAOIs, antihistamines, anti-depressants (imipramine or imipramine types) due to risk of prolonged hypertension.

**ROUTE:** IV, IO

| DOSAGE: | ADULT  | PEDIATRIC (<45 kg)  |
|---------|--|---|
|         | <p>2-12 mcg/min<br/>Titrate to SBP <math>\geq</math> 70-90mmHg or<br/>MAP <math>&gt;</math> 65</p> <p>Begin at low range and titrate<br/>up every 2-5 minutes until goal<br/>SBP/MAP achieved.</p> | <p>0.1-2 mcg/kg/min<br/>Titrate to age appropriate BP:<br/>SBP <math>&gt;</math> 70 + (2 x age)</p> <p>Begin at low range and titrate up<br/>every 2-5 minutes until goal<br/>SBP/MAP achieved.</p> |
|         |  |   |

**PREGNANCY SAFETY:** Category C – give only if potential benefits justifies risk to fetus

**PRECAUTIONS:** Utilize a large vein (ex: AC) as extravasation can cause tissue necrosis and sloughing.  
Continually check IV site for patency and signs/symptoms of infiltration.  
Do not use if discolored (e.g. pink, dark yellow, brown)  
D5W solution protects against loss of potency due to oxidation

**Early consultation with Medical Control to discuss medical decision making and treatment is encouraged when possible.**

#### **NOREPINEPHRINE DRIP PREPARATION FLOW SHEET**

1. Prepare a 250 ml bag of D5W.
2. Decant the volume of medication to be added to the bag.
3. Add 8 mg to create a concentration of 32 mcg/ml.
4. **Use of an IV Pump use is preferred.**

| Dose       | IV Pump<br>15 drops/ml<br>tubing | If IV pump not available:<br>Use 60 drops/ml<br>administration set |
|------------|----------------------------------|--|
| 2 mcg/min  |                                  | 4 drops/min.   |
| 4 mcg/min  |                                  | 8 drops/min.   |
| 6 mcg/min  | Utilize IV<br>Pump<br>settings   | 11 drops/min.  |
| 8 mcg/min  |                                  | 15 drops/min.  |
| 10 mcg/min |                                  | 19 drops/min.  |
| 12 mcg/min |                                  | 23 drops/min.  |