# HEALTHEAST MEDICAL TRANSPORTATION MEDICAL OPERATIONS MANUAL

## NITROGLYCERIN SUBLINGUAL

### Drug Classification: Vasodilator

### BACKGROUND

#### **Pharmacodynamics**

This medication relaxes vascular smooth muscle, dilating peripheral arteries and veins. This causes pooling of venous blood and decreased venous return to the heart, decreasing preload. Nitro also reduces left ventricular systolic wall tension, which decreases afterload.

#### **Indications**

- Chest pain of cardiac origin that does not subside after 3 or more doses of sublingual nitroglycerin.
- Acute pulmonary edema
- Symptomatic hypertension

#### **Contraindications**

- Allergy or known hypersensitivity to the medication.
- Do not administer to patients who have taken sildenafil (Viagra or Revatio) or vardenafil (Levitra) within the past 24 hours or tadalafil (Cialis) within the past 48 hours.
- Head Trauma with suspected increased intracranial pressure.
- Systolic blood pressure less than 100 mmHg.

#### **Cautions**

• This medication can cause dramatic decreases in blood pressure. Monitor patients closely for symptoms of hypotension.

## DOSAGE and ADMINISTRATION

ADULT	PEDIATRICS (less than 60 kg)
<ul> <li>For acute coronary syndrome</li> <li>1. Administer 0.4 mg if the systolic blood pressure is greater than 100 mmHg.</li> </ul>	1. Contact Medical Control for orders.
<ol> <li>Repeat every 5 minutes if chest discomfort persists and blood pressure remains greater than 100 mmHg<sup>4</sup>.</li> </ol>	

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ADULT	PEDIATRICS (less than 60 kg)
For acute pulmonary edema	
1. Administer 0.4 mg if systolic blood pressure is greater than 100 mmHg.	
2. Repeat every 3-5 minutes as long as systolic blood pressure remains above 100 mg Hg.	
For symptomatic hypertension	
1. If systolic blood pressure is greater than 220 mmHg or diastolic blood pressure is greater than 130 mmHg, contact Medical Control for orders to administer a single trial dose of 0.4 mg, to help reduce the patient's blood pressure.	

## **ADVERSE REACTIONS/SIDE EFFECTS**

- Headache, which may be severe and persistent, may occur immediately after use.
- Marked sensitivity to the hypotensive effects of nitrates.
- Syncope due to nitrate vasodilation.

### NOTES

### **REFERENCE GUIDELINE:**

2A Chest Pain/Acute Coronary Syndrome

2M Symptomatic Hypertension

**3C Acute Pulmonary Edema**