

Seminole Community College
Paramedic II
Medication Handout #11
Nitroglycerin / Morphine Sulfate

Name / Class: Nitroglycerin (Nitrostat) Nitrate

Description: Nitroglycerin is a rapid smooth muscle relaxant that reduces peripheral vascular resistance, blood pressure, venous return, and cardiac workload. The resulting decrease in peripheral vascular resistance decreases myocardial workload and myocardial oxygen demand.

Indications: Chest Pain associated with angina and acute myocardial infarction, and acute pulmonary edema.

Contraindications: Hypersensitivity, tolerance to nitrates, severe anemia, head trauma, hypotension, increase ICP, patients taking Sildenafil (Viagra) in the last 24 hours, glaucoma, and shock..

Precautions / Side Effects: May induce headache that is sometimes severe. May induce hypotension. Discontinue if Systolic Blood pressure drops below 90 mm Hg. Nitroglycerin is light sensitive and will lose potency when exposed to air.

Dosage / Route: 1 tablet sublingual (0.4mg). May be repeated every 3 to 5 minutes up to 3 tablets. ½ to 1 inch of paste (topical ointment) or 0.4 mg (1 spray) sublingual up to 3 sprays over 25 minutes. IV bolus of 12.5 to 25 micrograms. IV infusion 10 to 20 micrograms, titrated to effect.

Name / Class: Morphine Sulfate (Morphine) Narcotic Analgesic

Description: Morphine Sulfate is a potent analgesic and sedative that causes some vasodilation, reducing venous return, and reduced myocardial oxygen demand.

Indications: Moderate to severe pain, in acute myocardial infarction, and to reduce venous return in pulmonary edema.

Contraindication: Hypersensitivity to opiates, undiagnosed head or abdominal injury, hypotension, or volume depletion, acute bronchial asthma, COPD, severe respiratory depression, or pulmonary edema due to chemical inhalation.

Precautions / Side Effects: Elderly, children, or debilitated patients.
Naloxone (Narcan) should be readily available to counteract the effects of Morphine. Hypotension, tachycardia, bradycardia, syncope, respiratory depression, and allergic reaction.

Dosage / Route: Pain- Adult 2.5 to 15 mg IV or 5 to 20 mg IM/SC
Pain- Pediatric 0.05 to 0.1 mg/kg IV or 0.1 to 0.2 mg/kg IM/SC
AMI/PE- Adult 1 to 2 mg over 6 to 10 minutes to response
Note: ACLS calls for 2 to 5 mg IV every 5 minutes to response