



REGIONAL ADULT PARENTERAL DRUG MONOGRAPH

GENERIC NAME

nitroglycerin



Effective Date: Dec 2011

CLASSIFICATION
Vasodilator

OTHER NAMES
Nitro

PAGE

Revised Date: Dec 2022

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ADMINISTRATION POLICY:

- IV Infusion – Administration restricted to nurses experienced in ED/CARDIAC ROOM/ICU/PACU
- IV Bolus – Not recommended
- IM Injection – Not to be administered

RECONSTITUTION/DILUTION/ADMINISTRATION:

Available as: 100 mg/250 mL premixed glass bottle, 5 mg/mL – 10 mL vial

Use vented set administration

IV Infusion: Pump Library:

Drug Library	Dose Rate	Short Name	Care Unit
Yes	mcg/min	nitro100	Critical Care
Drug	Diluent	Final Volume (VTBI)	Final Concentration
100 mg (premixed)	250 mL premixed	250 mL	0.4 mg/mL
Clinical Advisory: High Alert			
Soft Low Dose Limit: 5 mcg/min		Soft High Dose Limit: 400 mcg/min	

DOSAGE:

Cardiac: 5 mcg/minute, increase by 5 mcg/minute every 3 to 5 minutes to 20 mcg/minute. If no response at 20 mcg/minute, may increase by 10 to 20 mcg/minute every 3 to 5 minutes.

Tachysystole (continuous uterine contraction): 50 mcg IV every 90 seconds to 3 minutes, to maximum of 200 mcg over 15 minutes. Necessary monitoring includes maternal BP, maternal SaO₂ and continuous electronic fetal monitoring (EFM). Sublingual nitro does not work and will give the woman a headache.

Maximum daily dose: Titrate to desired response (see Additional Notes and Nursing Considerations)

Maximum rate: 400 mcg/minute

STABILITY/COMPATIBILITY:

Stability of Final Admixture: 24 hours at room temperature

Compatibility: Compatible with D5W, normal saline



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PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:

- Headache, anxiety, weakness, dizziness, muscle twitching
- Tachycardia, hypotension, palpitations, retrosternal discomfort
- Nausea, vomiting, abdominal pain

ADDITIONAL NOTES AND NURSING CONSIDERATIONS:

- For continuous infusions and non-obstetrical indications: Cardiac monitoring required
- Take baseline vital signs (blood pressure, heart rate, respiratory rate) before beginning infusion and every 5 minutes until patient is stable
- Once patient is stable – monitor vital signs every 15 minutes for 1 hour and then every hour for duration of therapy
- Monitor IV site to avoid extravasation
- Nitroglycerin readily adsorbs to PVC, however, due to titration of dose, specialty administration sets are not required
- Contraindicated for patients with hypersensitivity to nitroglycerin, for those with hypotension and uncorrected hypovolemia, and patients with increased intracranial pressure
- Use of sildenafil (Viagra®), Tadalafil (Cialis®), Vardenafil (Levitra®) within previous 24 to 48 hours may cause irreversible hypotension
- Discontinue nitroglycerin by gradually reducing the rate (5 to 10 mcg/minute every 5 minutes)
- Although nitroglycerin may adsorb to PVC, regular PVC tubing will be used and the dosage will be titrated to the patient's response