Guidelines for the Use of Nitroprusside (Nipride®)

Recommended Neonatal Dose, Route, and Interval

- **Initial dose**: 0.25-0.5 mcg/kg/minute continuous IV infusion by syringe pump, titrate upward every 20 minutes until desired response is attained
- **Maintenance dose**: < 2 mcg/kg/minute
- For hypertensive crises, may use up to 10 mcg/kg/minute, but for no more longer than 10 minutes
- **Two RN signatures are required to verify that physician order is calculated within guidelines and that infusion rate is accurate.**

Chief Indications
- Used for rapid reduction of blood pressure in hypertensive crisis.
- Decreases preload and afterload.

Possible Adverse Reactions:
1. Severe hypotension, tachycardia
2. Metabolic acidosis (suggests cyanide toxicity).

Contraindications & Precautions
- Hypersensitivity to nitroprusside
- Decreased cerebral perfusion, AV shunt or coarctation of the aorta
- Use with caution in renal or hepatic dysfunction due to possible thiocyanate or cyanide toxicity.

Nursing Implications
- Monitor heart rate and blood pressure continuously.
- Monitor renal and hepatic function
- Metabolic acidosis is the earliest and most reliable evidence of cyanide toxicity.
- Measure cyanide and thiocyanate blood levels every 6 hours if used for more than 24 hours, patient has significant renal insufficiency, or dose is >4mcg/kg/min for any period of time.
- Protect solution from light. **Cover bag and tubing during infusion.**
- Standard concentration: 200mcg/mL in D5W (Not compatible in D10W)

References:
1. Neofax 2009

Reviewed/Revised: 6/2010 by

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