Guidelines for the Use of Furosemide (Lasix®)

**Recommended Neonatal Dose, Route, and Interval**

- Initial dose: 1mg/kg given PO or IV slow push over 1-2 minutes; maximum dose: 6 mg/kg/dose PO or 2 mg/kg/dose IV
- Recommended dosing interval:
  - Premature infant: q 24 hours
  - Full term infant: q12 hours
  - Full term infant older than 1 month age: q6 to 8 hours
  - Consider alternate day therapy for long-term use to minimize potential adverse effects

**Chief Indications**

1. Potent Diuretic: rapid acting in the treatment of CHF
2. Treatment of fluid overload
3. Pulmonary edema
4. Hypercalcemia
5. Hyperkalemia

**Possible Adverse Reactions**

1. Ototoxicity, including both transient and permanent hearing loss especially when used with aminoglycosides
2. May enhance nephrotoxicity of aminoglycosides antibiotics
3. Hypokalemia, hyponatremia, hypochloremic alkalosis
4. Hypercalciuria and development of renal calculi with chronic therapy
5. Dehydration
6. Photosensitivity

**CONTRAINDICATIONS/PRECAUTIONS:**

1. Hypersensitivity to furosemide
2. Anuria
3. If infant is receiving digoxin concomitantly with furosemide, potassium deficiency may potentiate digoxin toxicity
4. May be ineffective in infants receiving indomethacin for PDA closure. Will treat fluid overload but may stimulate renal prostaglandin synthesis, especially PGE2, thus promoting PDA
5. Caution use in renal failure-toxicity greater with decreased renal clearance

**Nursing Implications**

1. Pharmacy will prepare a 1mg/mL furosemide syringe.
2. Should not be diluted or mixed with dextrose or other acidic solutions, may cause furosemide to degrade
3. Monitor for hyponatremia, hypokalemia, and hypocalcemia
4. Monitor I & O closely including following SGs
5. Monitor for hematuria- may be a sign of renal calculi
Special Considerations and Calculations:
1. Effect evident within 5 minutes after IV administration, 1 hour after PO; duration of action 2-4 hours.
2. Store oral solution at room temperature.
3. Protect from light
4. Solution compatibility: NS & sterile water for direct IV injection; mix with D5W for continuous IV infusion
5. May provoke hyperglycemia or glucosuria, but to lesser extent than thiazide diuretics

References:
1. Neofax 2010

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