



# REGIONAL PEDIATRIC PARENTERAL DRUG MONOGRAPH

GENERIC NAME  
**furosemide**

<p><b>Effective Date:</b> Dec 2011 <b>Revised Date:</b> Nov13-2013</p>	<p>CLASSIFICATION <b>Diuretic</b></p>	<p>OTHER NAMES <b>Lasix</b></p>	<p>PAGE 1 of 2</p>
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**ADMINISTRATION POLICY:**

- IV Infusion – May be administered by a nurse
- IM Injection – May be administered by a nurse
- IV Bolus – May be administered by a nurse

**RECONSTITUTION/DILUTION/ADMINISTRATION:**

**Available as:** 10 mg/mL, 2 mL and 4 mL ampoules, 25 mL vials

**IV Bolus:** Administer undiluted or diluted over 2 – 4 minutes

**Intermittent:** Administer diluted in convenient volume of compatible IV solution over 5 – 60 minutes

**Central:** No special considerations. Refer to IV bolus or intermittent

**IM:** Administer into large muscle mass with needle of appropriate length and gauge. Do not mix with other medications.

**DOSAGE:**

**NEONATES/INFANTS less than 1 month**

**IV:** 0.5 – 1 mg/kg/dose every 12 – 24 hours

**CHILDREN/INFANTS 1 month or greater**

**IV, IM:** 1 – 2 mg/kg/dose repeat every 2 – 12 hours PRN or increase by 1 mg/kg increments  
(Maximum: 4 mg/kg/dose or 240 mg/dose)

**ADOLESCENTS**

**IV, IM:** 20 – 40 mg/dose every 6 – 24 hours  
(Maximum: 240 mg/dose)

**Renal impairment:** No dosage adjustment required

**Hepatic impairment:** Cirrhosis – start at lower dose and increase cautiously

**Obesity:** No data

**Maximum rate :** Doses less than 120 mg: 0.5 mg/kg/minute up to 10 mg/minute  
Doses equal or greater than 120 mg: 4 mg/minute

**Maximum concentration :** IV, IM: 10 mg/mL



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## STABILITY/COMPATIBILITY:

**Stability of multidose vial:** N/A  
**Stability of Final Admixture:** 24 hours at room temperature

**Compatibility:** D5W, normal saline, dextrose-saline solutions  
*IM : Do not mix with other medications*

## PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:

- Hypersensitivity: Anaphylaxis
- CV: Hypotension
- GI: Abdominal pain, cramping (associated with low serum calcium)
- Hemat: Anemia, leucopenia, neutropenia, thrombocytopenia
- Hepatic: Hepatic damage
- Metab: Hypokalemia, hypochloremia, metabolic alkalosis, hypocalcemia (increased calcium excretion), hypomagnesemia, hyperglycemia, glycosuria
- Neuro: Dizziness, vertigo, headache, blurred vision
- Renal: Increased BUN, hyperuricemia, allergic interstitial nephritis, nephrocalcinosis
- Local: IM: Pain at injection site
- Other: Ototoxicity (increased risk with high doses, pre-existing renal impairment, co-administration of other ototoxic agents eg: gentamicin or preterm neonates)
- Caution in pre-existing electrolyte disturbances, hepatic cirrhosis, diabetes
- Caution in pre-term neonates: Displaces bilirubin from albumin, increased risk of ototoxicity
- Contraindications with anuria, increasing azotemia
- Hepatic coma
- Hypersensitivity to sulfonamides (furosemide is a sulfonamide derivative)

## ADDITIONAL NOTES AND NURSING CONSIDERATIONS:

- **Required monitoring:**  
Dosages greater than 2 mg/kg/dose or greater than 40 mg/dose or greater than 1 mg/kg/hour  
 BP: Baseline and 1 hour post-administration after first 2 doses  
 Accurate fluid intake and output  
  
Serum electrolytes, BUN, serum creatinine, CBC  
 As indicated by medical condition and dosage of furosemide  
  
Infusion (dosages greater than 1 mg/kg/hour x 24 hours)  
 Consider audiology assessment