



**NEONATAL MEDICATION GUIDELINE**

**Furosemide (Frusemide)**

<b>Scope (Staff):</b>	Nursing, Midwifery, Medical and Pharmacy Staff
<b>Scope (Area):</b>	KEMH NICU, PCH NICU, NETS WA, KEMH and OPH Postnatal Clinical Areas

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**Quick Links**

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**Restrictions**

**Continuous IV Infusion:** [Formulary: Highly Restricted](#)

**IV/Oral:** [Formulary: Unrestricted](#)

**Description**

Loop diuretic

**Presentation**

**Ampoule:** 20mg/2mL

**Oral Suspension (Powder for Reconstitution):** 10mg/mL

**Storage**

**Oral suspension:** Refrigerate after reconstitution. Discard 14 days after reconstitution

**Infusion solution:** Store at room temperature, below 25°C

**Indication**

Diuresis

Adjunct therapy for:

- Chronic lung disease
- Congestive heart failure
- Renal failure
- Oedema

## Dose

### IV:

0.5 – 1 mg/kg/dose every 12 to 24 hours

*Maximum:* 2 mg/kg/dose in resistant cases

### Continuous IV infusion:

50 – 100 microgram/kg/hour, increase in 100 microgram/kg/hour increments every 12 to 24 hours

*Maximum:* 400 micrograms/kg/hour

### Oral:

0.5 – 2 mg/kg/dose every 12 to 24 hours

*Maximum:* 6 mg/kg/dose in resistant cases

## Dose Adjustment

Adjust dose according to response

## Preparation

### IV:

May be given undiluted – review with neonatologist

### IV dilution:

Dilute 1mL (10mg) of furosemide to 10mL with a compatible fluid

Concentration = 10mg/10mL = 1mg/mL

### Continuous IV infusion:

Dilute 5 mg/kg (0.5 mL/kg) of furosemide up to 50mL with a compatible fluid

Concentration 1mL/hour = 100 microgram/kg/hour

### Oral: Powder for reconstitution (KEMH)

Invert bottle and tap to loosen powder

Add 80mL of Water for Irrigation to the Powder for Reconstitution

Shake well. Refrigerate once reconstituted

Concentration = 10mg/mL

## Administration

**IV:** Over 3 – 5 minutes

**Oral:** May be given at any time in regard to feeds

## Compatible Fluids

Glucose 5%, Sodium Chloride 0.9%

Do not mix furosemide with solutions that have a pH of less than 5.5

### Compatibility with Heparin

	Sodium Chloride 0.9%	Glucose 5%
With Heparin	Stable for 24 hours at room temperature	No/Limited Data
Without Heparin	Stable for 48 hours at room temperature	Stable for 48 hours at room temperature

## Side Effects

**Common:** disturbance of water and electrolyte balance, hyponatraemia, hypokalaemia

**Serious:** ototoxicity, jaundice

## Interactions

Where possible, avoid concurrent use with aminoglycosides (e.g. gentamicin, amikacin) to minimise risk of ototoxicity

## Monitoring

Urea and electrolytes (hyponatraemia, hypokalaemia)

Renal function, blood pressure, hearing (long term, high dose)

## Comments

Consider addition of potassium sparing diuretic with prolonged therapy

Furosemide may displace bilirubin from albumin, increasing the risk of jaundice

Furosemide is potentially ototoxic; initiate follow-up hearing test in infants with cumulative dose > 10 mg/kg

## Related Policies, Procedures & Guidelines

### CAHS Clinical Guidelines:

[Congenital Diaphragmatic Hernia \(CDH\)](#)

[Cardiac: Complications Management Following Surgery](#)

[Pulmonary Haemorrhage](#)

[Hyperkalaemia Management](#)

[Cardiac: Coarctation of the Aorta \(CoA\) and Interrupted Aortic Arch \(IAA\)](#)

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## Furosemide (Frusemide)

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