



NEONATAL

FUROSEMIDE (FRUSEMIDE)

IV/Oral Unrestricted: Any prescriber may initiate treatment as per guideline




Continuous IV Infusion : Highly Restricted : Required Neonatologist approval before commencing

This document should be read in conjunction with this [DISCLAIMER](#)

Presentation	Ampoule: 20mg/2mL Oral Suspension (Powder for Reconstitution): 10mg/mL
Classification	Loop Diuretic
Indication	Diuresis Adjunct therapy for: <ul style="list-style-type: none"> • Chronic lung disease • Congestive heart failure • Renal failure • Oedema
Dose	<p><u>IV:</u> 0.5 - 1 mg/kg/dose every 12 to 24 hours Maximum: 2mg/kg/dose in resistant cases</p> <p><u>Continuous IV infusion:</u> 50microgram to 100microgram/kg/hour increase in 100microgram/kg/hour increments every 12 to 24 hours Maximum: 400microgram/kg/hour</p> <p><u>Oral:</u> 0.5-2 mg/kg/dose every 12 to 24 hours. Maximum: 6mg/kg/dose in resistant cases</p>
Monitoring	Urea and electrolytes (hyponatraemia, hypokalaemia) Renal function, blood pressure, hearing (long term ,high dose)

Dose Adjustment	Adjust dose according to response
Compatible Fluids	Glucose 5%, Sodium chloride 0.9%. Do not mix furosemide with solutions that have a pH of less than 5.5
Preparation	<p><u>IV:</u> May be given undiluted – review with neonatologist</p> <p><u>IV Dilution</u> Dilute 1mL (10mg) of furosemide to 10mL with a compatible fluid <u>Concentration = 10mg/10mL = 1mg/mL</u></p> <p><u>Continuous IV infusion:</u> Dilute 5mg/kg (0.5mL/kg) of frusemide up to 50mL with a compatible fluid. <u>Concentration 1mL/hour= 100microgram/kg/hour.</u></p> <p><u>Oral:</u> 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. <u>Concentration = 10mg/mL</u></p>
Administration	<p><u>IV:</u> Over 3 - 5 minutes</p> <p><u>Oral:</u> May be given at any time with regard to feeds</p>
Adverse Reactions	<p>Common: Disturbance of water and electrolyte balance, hyponatraemia, hypokalaemia</p> <p>Rare: Ototoxicity, jaundice</p>
Storage	<p>Oral suspension: Refrigerate after reconstitution. Discard 14 days after reconstitution</p> <p>Infusion solution: Store at Room Temperature- Below 25°C</p>
Interactions	Where possible, avoid concurrent use with aminoglycosides (e.g gentamicin, amikacin) – minimise risk of ototoxicity.

Notes	<p>Consider addition of potassium sparing diuretic with prolonged therapy</p> <p>Furosemide may Displaces bilirubin from albumin, increased risk of jaundice</p> <p>Furosemide is potentially ototoxic; initiate follow-up hearing test in infants with cumulative dose >10mg/kg</p>
Guidelines & Resources	<p>CAHS Neonatal Directorate: Congenital Diaphragmatic Hernia (CDH)</p> <p>CAHS Neonatal Directorate: Cardiac: Complications Management Following Surgery</p> <p>CAHS Neonatal Directorate: Pulmonary Haemorrhage</p> <p>CAHS Neonatal Directorate: Hyperkalaemia Management</p> <p>CAHS Neonatal Directorate: Cardiac: Coarctation of the Aorta (CoA) and Interrupted Aortic Arch (IAA)</p>
References	<p>Truven Health Analytics. Furosemide. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2019 May 29]. Available from: https://neofax.micromedexsolutions.com/</p> <p>Takemoto CK, Hodding JH, Kraus DM. Pediatric & neonatal dosage handbook with international trade names index : a universal resource for clinicians treating pediatric and neonatal patients. 24th ed. Hudson (Ohio): Lexicomp; 2401. 2, p914.</p> <p>Australian Medicines Handbook. Furosemide. In: Australian Medicines Handbook [Internet]. Adelaide (South Australia): Australian Medicines Handbook; 2019 [cited 2019 Jul 30]. Available from: https://amhonline.amh.net.au/</p> <p>Society of Hospital Pharmacists of Australia. Buprenorphine. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2019 [cited 2019 Jul 30]. Available from: http://aidh.hcn.com.au</p>

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Date first issued:	January 2016	Version:	3.2
Last reviewed:	July 2019, November 2020	Next review date:	November 2023
Endorsed by:	Neonatal Directorate Management Group	Date:	November 2020
Standards Applicable:	NSQHS Standards: 1  Governance 3  Infection Control 4  Medication Safety;		
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