



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](#)

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

<b>Dose Adjustment</b>	Adjust dose according to response
<b>Compatible Fluids</b>	Glucose 5%, Sodium chloride 0.9%. Do not mix furosemide with solutions that have a pH of less than 5.5
<b>Preparation</b>	<p><b><u>IV:</u></b> Dilute 1mL (10mg) of furosemide to 10mL with a compatible fluid <u>Concentration = 10mg/10mL = 1mg/mL</u></p> <p><b><u>Continuous IV infusion:</u></b> 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><b><u>Oral:</u></b> 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>
<b>Administration</b>	<p><b><u>IV:</u></b> Over 3 - 5 minutes</p> <p><b><u>Oral:</u></b> May be given at any time with regard to feeds</p>
<b>Adverse Reactions</b>	<p><b>Common:</b> Disturbance of water and electrolyte balance, hyponatraemia, hypokalaemia</p> <p><b>Rare:</b> Ototoxicity, jaundice</p>
<b>Storage</b>	<p><b>Oral suspension:</b> Refrigerate after reconstitution. Discard 14 days after reconstitution</p> <p><b>Infusion solution:</b> Store at Room Temperature- Below 25°C</p>
<b>Interactions</b>	Where possible, avoid concurrent use with aminoglycosides (e.g gentamicin, amikacin) – minimise risk of ototoxicity.
<b>Notes</b>	Consider addition of potassium sparing diuretic with prolonged therapy Furosemide may Displaces bilirubin from albumin, increased risk of jaundice

	Furosemide is potentially ototoxic; initiate follow-up hearing test in infants with cumulative dose >10mg/kg
<b>Guidelines &amp; Resources</b>	<p><a href="#">WNHS Neonatal Directorate: Congenital Diaphragmatic Hernia (CDH)</a></p> <p><a href="#">WNHS Neonatal Directorate: Cardiac: Complications Management Following Surgery</a></p> <p><a href="#">WNHS Neonatal Directorate: Pulmonary Haemorrhage</a></p> <p><a href="#">WNHS Neonatal Directorate: Hyperkalaemia Management</a></p> <p><a href="#">WNHS Neonatal Directorate: Cardiac: Coarctation of the Aorta (CoA) and Interrupted Aortic Arch (IAA)</a></p>
<b>References</b>	<p>Truven Health Analytics. Furosemide. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2019 May 29]. Available from: <a href="https://neofax.micromedexsolutions.com/">https://neofax.micromedexsolutions.com/</a></p> <p>Takemoto CK, Hodding JH, Kraus DM. Pediatric &amp; 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: <a href="https://amhonline.amh.net.au/">https://amhonline.amh.net.au/</a></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: <a href="http://aidh.hcn.com.au">http://aidh.hcn.com.au</a></p>

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