



NEONATAL Medication Monograph

# LABETALOL

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

**Highly Restricted:** Requires Cardiologist or Neonatologist approval before commencing

<b>Presentation</b>	<p><b>Ampoule:</b> 50mg/10mL</p> <p><b>Oral:</b> 10mg/mL suspension</p>
<b>Description</b>	<p>Lowers blood pressure by blocking alpha-adrenoreceptors in peripheral arterioles and therefore reduces peripheral vascular resistance.</p> <p>Also blocks beta-adrenoreceptors, in the heart, reducing blood pressure without cardiac stimulation or reduction in cardiac output.</p>
<b>Indications</b>	<p>Treatment of all grades of hypertension</p> <p>Hypertensive emergencies (IV administration)</p>
<b>Precautions</b>	<p>Hyperthyroidism – may mask signs of hyperthyroidism</p> <p>Diabetes mellitus – may potentiate hypoglycaemia</p> <p>Compensated heart failure – monitor for worsening of condition.</p> <p>Phaeochromocytoma – some patients can have a paradoxical hypertensive response.</p>
<b>Dosage</b>	<p><b>Oral:</b></p> <p>0.5-1mg/kg/dose twice or three times a day</p> <p><b>Maximum: 10 mg/kg/day</b></p> <p><b>IV infusion:</b></p> <p>0.25mg - 3mg/ kg/ hour</p> <p>Commence at lower dose and then titrate to effect up to 3mg/kg/hour.</p>
<b>Adverse Reactions</b>	<p><b>Common:</b> transient worsening of heart failure, alteration of glucose and lipid metabolism</p> <p><b>Serious:</b> thrombocytopenia, increased aminotransferase concentrations, hepatotoxicity, ventricular arrhythmias (IV), flushing, hypotension, bronchospasm.</p>

<b>Compatible Fluids</b>	Glucose 5%, Sodium Chloride 0.9%, Glucose in Sodium Chloride solutions
<b>Preparation</b>	Dilute 10mL (50mg) in 50mL of compatible fluid Concentration is 50mg/50mL = 1mg/mL  May be given undiluted (5mg/mL) if fluid restricted via CVC.
<b>Administration</b>	<b>Oral:</b> Labetalol can be taken with or without food but should be taken in a consistent manner with regards to food.  <b>IV infusion:</b> If fluid restricted may be given undiluted (5mg/mL), preferably through a CVC.
<b>Monitoring</b>	<b>IV infusion:</b> Blood pressure, heart rate, pulse, ECG monitoring Continue monitoring for at least 6 hours after infusion due to prolonged duration of action  <b>Oral:</b> Monitor for reduction in standing blood pressure within the first 1 to 3 hours of an initial dose or dose increase. Assess hepatic function at regular intervals or at the first sign or symptom of liver dysfunction
<b>Storage</b>	Store at room temperature - below 25°C.
<b>References</b>	Starr MC, Flynn JT. Neonatal hypertension: cases, causes, and clinical approach. <i>Pediatr Nephrol.</i> 2019 May;34(5):787-799. doi: 10.1007/s00467-018-3977-4. Epub 2018 May 28. Erratum in: <i>Pediatr Nephrol.</i> 2019 Sep;34(9):1637. PMID: 29808264; PMCID: PMC6261698.  Clinical Pharmacology [Online database]. Elsevier. Cited 2 <sup>nd</sup> Nov 2020. Available from: <a href="http://www.clinicalkey.com.pklibresources.health.wa.gov.au/pharmacology/">www.clinicalkey.com.pklibresources.health.wa.gov.au/pharmacology/</a>  Ketamine Paediatric drug information [Internet], UpToDate [Online database]. Cited 2 <sup>nd</sup> Nov 2020

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