



NEONATAL Medication Monograph

# GLYCERYL TRINITRATE (GTN)





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

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

**Topical : Restricted:** Requires Neonatologist review within 24 hours of initiation

<b>Presentation</b>	<b>Ampoule:</b> 50mg/10mL = 5mg/mL <b>Topical:</b> 0.2% Ointment
<b>Description</b>	Vasodilator
<b>Indications</b>	Intravenous For control of hypertension associated with cardiac/surgical procedures  Topical May be used to reverse peripheral tissue ischaemia secondary to arterial line complications in neonates
<b>Contraindications</b>	Avoid use with increased intracranial pressure, severe anaemia and hypotension
<b>Precautions</b>	GTN readily absorbs into plastic - Use only polyethylene tubing e.g. portex manometer or Go Medical V2V4 set tubing
<b>Dosage</b>	<b>IV:</b> 1 to 3 micrograms/ kg/ minute Maximum 10micrograms/ kg/ minute  <b>Topical:</b> 1cm/ kg / application Repeat dose every 8 hours if required
<b>Dosage Adjustment</b>	<b>IV:</b> Consult Cardiology for ongoing dose adjustments

<b>Adverse Reactions</b>	Tachycardia, paradoxical bradycardia, flushing , nausea, vomiting, hypotension
<b>Interactions</b>	Avoid concomitant use with Sildenafil or Nitric Oxide
<b>Compatible Fluids</b>	Glucose 5% <b>ONLY</b>
<b>Preparation</b>	<p><b>Wear Gloves to prepare GTN</b></p> <p><i>systemic absorption risk is high (adverse effects in administrator – headaches)</i></p> <p><b><u>IV:</u></b></p> <p>Withdraw 3mg /kg (0.6mL/ kg) and make to a final volume of 50mL with Glucose 5%</p> <p><b>Concentration:</b></p> <p>1mL/hour = 1 microgram/ kg/ minute</p>
<b>Administration</b>	<p><b><u>IV:</u></b></p> <p>Administer via an Infusion Pump</p> <p><b><u>Topical:</u></b></p> <p>Apply a thin film over the affected area(s)</p>
<b>Monitoring</b>	Cardiac Monitoring, blood pressure , respiratory function
<b>Storage</b>	<p>Store at room temperature, below 25°C</p> <p><b><u>IV:</u></b></p> <p>Do not use if solution is turbid or has crystallised.</p>
<b>Related clinical guidelines</b>	<a href="#">Cardiac: Complications Management Following Surgery</a>
<b>References</b>	<p>Baserga MC, Pur A, Sola A. The use of topical nitroglycerine ointment to treat peripheral tissue ischaemia secondary to arterial line complications in neonates. J Perinatol 2002;22(5):416-9</p> <p>British National Formulary. BNF for Children. 2018-19 ed. London, UK: BMJ Group and Pharmaceutical Press; 2018.</p>

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