



NEONATAL

# PARACETAMOL




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

**Unrestricted:** Any prescriber may initiate treatment

<b>Presentation</b>	Oral mixture: 250mg/5mL IV Bag: 1g/100mL (10mg/mL)														
<b>Classification</b>	Non-narcotic analgesic and antipyretic														
<b>Indication</b>	<ul style="list-style-type: none"> <li>• <b>Analgesia:</b> For relief of postoperative pain and reduce the use of narcotic analgesics in infants <math>\geq 32</math> weeks. <ul style="list-style-type: none"> <li>○ Indicated in PAT score more than 10 or PIPP score more than 12</li> </ul> </li> <li>• <b>Haemodynamically significant Ductus Arteriosus (DA):</b> Where indomethacin is contraindicated or 2 courses have failed.</li> </ul> <p>Contraindicated where patient has hypersensitivity to paracetamol, severe hepatocellular insufficiency or hepatic failure</p>														
<b>Dose</b>	<p><b><u>Analgesia/Antipyretic</u></b></p> <p><b><u>Intravenous (IV) :</u></b> CGA <math>\geq 32</math> weeks <b>Loading Dose:</b> 20mg/kg/dose <b>Maintenance Dose :</b> 10mg/kg/dose every 8 hours for a maximum of 48 hours. <b>Maximum Dose:</b> 50mg/kg/day</p> <p><b>Oral:</b></p> <table border="1"> <thead> <tr> <th>Corrected Gestational Age</th> <th>Loading Dose</th> <th>Maintenance Dose</th> <th>Maximum Dose</th> </tr> </thead> <tbody> <tr> <td>28 to 32 weeks</td> <td>20mg/kg/dose</td> <td>10-15mg/kg/dose every 8 to 12 hours as necessary</td> <td>40mg/kg/day</td> </tr> <tr> <td>&gt;32 weeks</td> <td>20mg/kg/dose</td> <td>10-15mg/kg/dose every 6 to 8 hours as necessary</td> <td>60mg/kg/day</td> </tr> </tbody> </table>			Corrected Gestational Age	Loading Dose	Maintenance Dose	Maximum Dose	28 to 32 weeks	20mg/kg/dose	10-15mg/kg/dose every 8 to 12 hours as necessary	40mg/kg/day	>32 weeks	20mg/kg/dose	10-15mg/kg/dose every 6 to 8 hours as necessary	60mg/kg/day
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	<p><b><u>Hemodynamically Significant Ductus Arteriosus (DA)</u></b></p> <p><b>Oral/IV:</b> 15mg/kg/dose every 6 hours for 5 days. DA to be reviewed 3 days after course completion</p>	
<b>Monitoring</b>	<p>Monitor for analgesic response</p> <p>Monitor temperature if used for fever</p> <p>Monitor LFT's and U+E's with prolonged use or acute toxicity</p> <p>Monitor blood paracetamol level in premature neonates if signs of acute toxicity</p>	
<b>Guidelines &amp; Resources</b>	<p><a href="#"><u>Patent Ductus Arteriosus (PDA)</u></a></p>	
<b>Compatible Fluids</b>	<p>Glucose 5%, Sodium Chloride 0.9%</p>	
<b>Preparation</b>	<p><b>IV:</b> Use undiluted</p> <p><b>Oral:</b> Nil</p>	
<b>Administration</b>	<p><b>IV:</b> Infuse over 15 minutes</p> <p><b>Oral:</b> Can be given any time with regards to feeds</p>	
<b>Adverse Reactions</b>	<p><b>Common</b></p> <p><b>Serious</b></p>	<p>nausea, vomiting, constipation, dizziness, injection site pain, pruritus, hypothermia</p> <p>skin rash/urticaria, thrombocytopenia, anaphylactic shock, hepatotoxic with chronic use, risk of haemolysis in G6PD patients with high dosage</p>
<b>Storage</b>	<p>Store at room temperature</p>	
<b>Notes</b>	<ul style="list-style-type: none"> <li>• Discard bag immediately after use</li> <li>• Do not refrigerate bag</li> <li>• Contraindicated where patient has hypersensitivity to paracetamol, severe hepatocellular insufficiency or hepatic failure.</li> <li>• <b>Do not</b> use in infants with hepatocellular insufficiency, severe renal impairment and dehydration.</li> <li>• Barbiturates, carbamazepine and phenytoin may increase clearance of paracetamol.</li> <li>• Measure the paracetamol level if toxicity is suspected, routine monitoring not required.</li> <li>• Antidote for paracetamol overdose: Acetylcysteine</li> </ul>	

<b>References</b>	<p>Truven Health Analytics. Paracetamol. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2019 [cited 2019 Sept 18]. Available from: <a href="https://neofax.micromedexsolutions.com/">https://neofax.micromedexsolutions.com/</a></p> <p>Society of Hospital Pharmacists of Australia. Buprenorphine. In: Australian Injectable Drugs Handbook [Internet]. [St Leonards, New South Wales]: Health Communication Network; 2018 [cited 2017 Nov 19]. Available from: <a href="http://aidh.hcn.com.au">http://aidh.hcn.com.au</a></p> <p>Taketomo CK, Hodding JH, Kraus DM. Pediatric and neonatal dosage handbook. Hudson (OH): Lexi Comp; 2010.</p> <p>Terrin, G., et al. (2016). "Paracetamol for the treatment of patent ductus arteriosus in preterm neonates: a systematic review and meta-analysis." <u>Archives of disease in childhood. Fetal and neonatal edition</u> <b>101</b>(2): F127-136.</p> <p>Seymour, R. A., et al. (1984). "A comparative study of the effects of aspirin and paracetamol (acetaminophen) on platelet aggregation and bleeding time." <u>Eur J Clin Pharmacol</u> <b>26</b>(5): 567-571.</p>
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