# PARACETAMOL - Intravenous

<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Perfalgan</th>
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</thead>
<tbody>
<tr>
<td>Class</td>
<td>Antipyretic and analgesic.</td>
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<tr>
<td>Mechanism of Action</td>
<td>Uncertain. Inhibits prostaglandin synthesis within the CNS. Acts peripherally by blocking pain impulse generation. Relieves fever by central action in hypothalamic heat regulating centre.</td>
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</tbody>
</table>
| Indications | Postoperative pain where the oral and rectal routes are not possible  
| | Postoperative pain when the onset of action from the rectal route is deemed to be too slow  
| | As an adjunct to opioid use to allow weaning of morphine  
| | Change to oral dosing as soon as possible |
| Contraindications | Hypersensitivity to paracetamol  
| | Hepatic failure  
| | G6PD deficiency can lead to haemolytic anaemia |
| Precautions | Caution in renal failure  
| | Caution with hepatocellular insufficiency  
| | Dehydration  
| | Clearance falls with unconjugated hyperbilirubinaemia |
| Supplied As | 10mg/mL in 100mL glass vials |
| Dilution | Nil, can be diluted in 0.9% saline and 5% dextrose if needed |
| Dosage/Interval |  |
| Postmenstrual GA | Loading Dose (once only) | Maintenance Dose | Interval |
| ≥ 37 wks | 20mg/kg | 10mg/kg/dose | 6 hourly |
| 28-36+6 wks | 20mg/kg | 7.5mg/kg/dose | 6 hourly |
| Administration | Infusion over 15 minutes |
| Compatible With | Sodium chloride 0.9% and 5% dextrose.  
| | Do NOT mix with other medications or IV fluids. |

**Do not give regular IV paracetamol for longer than 4 days without an SMO review of the clinical situation**

- If 28-31+6 wks check LFT and trough level at 48 hours  
- If ≥ 32 wks check LFT and trough level on day 4  

Consider reducing the dose after 4 days if to continue  
Change to oral dosing as soon as possible  
Reduce the dose with hyperbilirubinaemia as this may suggest reduced hepatic conjugation and paracetamol clearance.
Incompatible With

Enzyme inducers such as phenobarbitone, phenytoin, carbamazepine, isoniazid, zidovudine

Monitoring

Day 2 or 4: LFT’s and trough paracetamol level, review the dose and the need to continue iv therapy

At any time: LFT’s and trough paracetamol level if there are any concerns about toxicity or the patient is at high risk (renal, liver impairment, GA)

Aim for a trough level < 60 micromol/L* (equates to 10mg/L)

Stability

If diluted, administer within 30 minutes.
Vials are preservative free and are for single use only.

Storage

Do not store in the fridge
Complete infusion within 1 hour of opening the vial

Adverse Reactions

Pain at injection site
Rash, fever, bone marrow depression
Beware of accumulation if used regularly for > 48hrs
Hepatotoxicity in neonates rare.

Overdose: hepatotoxicity, renal tubular acidosis, metabolic acidosis, encephalopathy. Monitor LFT and coag profile and treat with n-acetylcysteine

Metabolism

100% bioavailability.
Onset of pain relief within 5-10 mins, peak effect at 1 hour
Metabolised in the liver by conjugation and metabolism by cytochrome P450. Excreted in the urine 90%

Comments

Licensed for use in term newborns.
Safety and efficacy data have not been established on preterm infants
See Neofax for treatment of serious overdose

References

1. Medsafe data sheet
2. *Princess Margaret Hospital Perth. Paracetamol protocol June 2008
8. Allegaert K et al. Not all iv paracetamol formulations are created equal… Pediatr Anaesthesia 2007:17, 809-18.

Updated By

A Lynn, B Robertshawe, F Robertson May 2009, Sept 2009
A Lynn, B Robertshawe June 2010, Dec 2012 (re-order profile) Remove D2 levels
A Lynn, B Robertshawe June 2014 (decrease GA to 28 weeks)