

ONDANSETRON

Trade Name	Periset® Ipca Pharma, Dr Reddys Ondansetron®.										
Class	Ondansetron is a selective 5HT3 receptor antagonist										
Mechanism of Action	Ondansetron blocks serotonin activity on peripheral vagal nerve terminals and in the chemoreceptor trigger zone of the central nervous system.										
Indications	Prevention and treatment of nausea and vomiting following exposure to highly emetic stimuli (surgery or chemotherapy) or for palliative care										
Contraindications	<p>Hypersensitivity to 5HT3 receptor antagonists Long Q-T syndrome Ondansetron wafers contain aspartame, use with caution in patients with phenylketonuria. A dose reduction may be required in patients with liver impairment.</p> <p>Warning: Ondansetron injection contains large amounts of benzyl alcohol which has been associated with neonatal “gaspings syndrome”. At the current time ondansetron injection is not recommended for use in the neonatal unit at CWH.</p>										
Supplied As	<p>IV: no dilution required Oral: Dispersible wafers or tablets 4mg (8mg wafers and tablets are also available)</p>										
Dilution	<p>IV: no dilution required Oral: disperse ONE 4mg wafer or tablet in 5 mL of water.</p> <table border="1"> <thead> <tr> <th>Drug</th> <th>Water Added</th> <th>Final Volume</th> <th>Final Concentration</th> </tr> </thead> <tbody> <tr> <td>4 mg</td> <td>5 mL</td> <td>5 mL</td> <td>0.8 mg/mL</td> </tr> </tbody> </table>			Drug	Water Added	Final Volume	Final Concentration	4 mg	5 mL	5 mL	0.8 mg/mL
Drug	Water Added	Final Volume	Final Concentration								
4 mg	5 mL	5 mL	0.8 mg/mL								
Dosage	<p>IV: 100 mcg/kg Oral: 100-200 mcg/kg Or dosing as per Consultant</p>										
Interval	<p>Chemotherapy: Usually given as a single dose 30 - 60 minutes prior to chemotherapy. Dose may be repeated every 6 hours for TWO further doses if needed.</p> <p>Palliative Care/Longer Term Use: 8-12 hourly</p>										
Administration	<p>IV: Slow push over at least 30 seconds Oral: via mouth or ng tube</p>										

Compatible With	<p>Solution: sodium chloride 0.9%, glucose 5%, mannitol</p> <p>Y-site: adrenaline, amikacin, amiodarone, ascorbic acid, atropine, azithromycin, benzyl penicillin, calcium chloride, calcium gluconate, cefazolin, cefotaxime, cefoxitin, cefuroxime, ciprofloxacin, clindamycin, ciclosporin, dexamethasone, dexmedetomidine, digoxin, dobutamine, dopamine, ephedrine, epoetin, erythromycin, famotidine, fentanyl, filgrastim, fluconazole, gentamicin, heparin, hydrocortisone, imipenem/cilastatin, lidocaine, lipid, magnesium sulfate, metronidazole, midazolam, morphine, noradrenaline, octreotide, paracetamol, phenylephrine, piperacillin /tazobactam, potassium chloride, propranolol, protamine sulphate, pyridoxine, ranitidine, tobramycin, vancomycin, vasopressin, voriconazole, zidovudine.</p>
Incompatible With	<p>Acyclovir, amphotericin, ceftazidime*, ceftriaxone*, chloramphenicol, diazoxide, furosemide, ganciclovir, indometacin, insulin*, meropenem* methylprednisolone*, milrinone, phenobarbital, phenytoin, sodium bicarbonate, sulfamethoxazole/trimethoprim.</p> <p>*Variable reports exist for the compatibility of these medicines with ondansetron use a separate line if possible.</p>
Monitoring	<p>Watch for constipation and prescribe laxatives if needed</p> <p>Electrolytes, LFTs. Dose reduce if abnormal liver function</p> <p>Monitor ECG when used in combination with other medicines that prolong QTc interval or in the presence of electrolyte disturbances especially potassium and magnesium.</p>
Stability	<p>Oral: tablets: manufacturer's expiry</p> <p>Use a new tablet to freshly prepare each oral liquid dose and discard any remaining solution immediately after use.</p> <p>IV: manufacturer's expiry.</p>
Storage	<p>Ondansetron tablets and injection should be stored at room temperature prior to use.</p> <p>Protect from moisture and light</p>
Adverse Reactions	<p>Constipation, diarrhoea, headache, hypotension, hypoglycaemia, hypokalaemia, flushing, bradyarrhythmias, QTc prolongation, drowsiness, dry mouth, hiccups, tremor, ataxia, bronchospasm, dry mouth, transient rise in liver enzymes.</p>
Metabolism	<p>Ondansetron undergoes extensive first pass metabolism</p> <p>Metabolised in the liver by CYP 1A2, 2D6 and 3A4</p> <p>Bioavailability of oral preparation is 50 – 70%</p> <p>Half life in infants 1 -4 months old is approximately 6 – 7 hours</p> <p>Half life in children 5 months – 12 years is approximately 3 hours</p>
Interactions	<p>Effects of ondansetron may be decreased by phenobarbitone and other CYP3A4/5 inducers.</p> <p>Effects of ondansetron increased by p-glycoprotein inhibitors eg cyclosporin, grapefruit juice, itraconazole</p>
Comments	N/A

References	<ol style="list-style-type: none">1. BNF for children 20092. Paediatric Dosage Handbook Taketomo et al 16th Ed 2009.3. Drug Doses Frank Shann RCH Melbourne Australia 14th Edition 2008.4. www.medsafe.govt.nz5. www.nzf.org.nz
Updated By	A Lynn and B Robertshawe Dec 2010 A Lynn, B Robertshawe Dec 2012 (re-order profile) A Lynn, B Robertshawe March 2022 (routine review, interactions update) B Robertshawe January 2024 (general review & update of oral formula) A Lynn, B Robertshawe Dec 2024 (indication for palliative care)