

Alert	Short- and long-term safety data in infants are limited but there have been several safety concerns with long term usage in adults. The bioavailability of the in-house pharmacy suspension made from the contents of the capsule may be less (up to 25% less) than that of the tablet itself. Dose may need to be adjusted if no clinical response.
Indication	Treatment of gastroesophageal reflux disease (GORD) Post-operative prophylaxis in congenital tracheoesophageal fistula and oesophageal atresia (role unclear)
Action	Proton pump inhibitor (PPI).
Drug Type	Proton pump inhibitor
Trade Name	Pantoprazole Sandoz 40 mg Powder for Injection (Sandoz), Somac Injection (Powder for injection) (Takeda Pharmaceuticals)
Presentation	IV: 40 mg/vial of pantoprazole in dry powder form. PO: 2 mg/mL dispersion (compounded by Pharmacy) Australia Pharmaceutical Formulary and Handbook formula
Dosage / Interval	IV 0.5 mg/kg/dose 12 hourly PO: 0.6–1.2 mg/kg/dose daily
Maximum daily dose	
Route	IV, PO
Preparation/Dilution	A) IV infusion option: Add 10 mL of sodium chloride 0.9% to 40 mg powder for reconstitution to make a volume of 10 mL with a concentration of 4 mg/mL. Draw up 1 mL (4 mg) and add 9 mL of sodium chloride 0.9% to make a final volume of 10 mL with a concentration of 0.4 mg/mL. B) IV push option: Add 10 mL of sodium chloride 0.9% to 40 mg powder for reconstitution to make a volume of 10 mL with a concentration of 4 mg/mL
Administration	IV: IV infusion — over 15 min IV push — over at least 2 minutes. PO: Give ½ hour before feed. Shake well before use.
Monitoring	Serum magnesium periodically during prolonged therapy. Consider transaminase levels
Contraindications	Liver disease.
Precautions	Short- and long-term safety data in infants are limited but there have been several safety concerns with long term usage in adults. Current FDA's maximum recommended duration of therapy of PPIs is up to 8 weeks.
Drug Interactions	Concurrent use of ketoconazole may result in decreased ketoconazole exposure. Concurrent use of ampicillin may result in loss of ampicillin efficacy.
Adverse Reactions	Limited data available, though appears well tolerated and to have few side effects. Uncommon reports of nausea, vomiting and skin rash. Reported adverse events in adults: Abdominal pain (3%), diarrhea (4%), flatulence (4%) Neurologic: Headache (5%) Atrophic gastritis, <i>Clostridium difficile</i> diarrhea Haematological: Thrombocytopenia (less than 1%) Immunological: Stevens-Johnson syndrome, toxic epidermal necrolysis Musculoskeletal: fracture of bone, osteoporosis-related hip fracture, rhabdomyolysis Renal: Interstitial nephritis, acute
Compatibility	Fluids: Glucose 5%, glucose 10%, sodium chloride 0.9%. Y site: Acetazolamide, alprostadil, aminophylline, amoxicillin sodium-clavulanate, amphotericin B phospholipid complex, amphotericin B liposomal, ampicillin, azithromycin, ceftriaxone, ganciclovir, imipenem-cilastatin, penicillin G, piperacillin, potassium chloride, theophylline, ticarcillin disodium, ticarcillin disodium-clavulanate,

	vasopressin, zidovudine.
Incompatibility	Fluids: Amino acid solutions and lipid emulsions. Y site: Atenolol, atracurium, atropine, caffeine citrate, calcium chloride, cefotaxime, dexamethasone, diazepam, dobutamine, ephedrine, fentanyl, fluconazole, hydralazine, indometacin, labetalol, lidocaine, meropenem, methylprednisolone, metronidazole, midazolam, milrinone, naloxone, pancuronium, phenytoin, propranolol, ranitidine, rocuronium, vecuronium
Stability	IV: Reconstituted solution is stable for 24 hours at 2 to 8°C. Diluted solutions must be used within 12 hours of preparation. Oral: 28 days shelf-life from date of manufacture.
Storage	IV: Store below 25°C. Protect from light. Oral: Store at 2–8°C. Protect from light.
Special Comments	Bioavailability of oral dispersion is approximately 75% of intact tablets.
Evidence summary	As per NMF Consensus Group. Refer to reference manual or electronic version.
References	As per NMF Consensus Group. Refer to reference manual or electronic version.

Original version Date: 24/08/2016	Author: Neonatal Medicines Formulary Consensus Group
Current Version number: 1	Current Version Date: 24/08/2016
Risk Rating: Medium	Due for Review: 24/08/2019
Approval by: JHCH CQ&PCC	Approval Date: 22/08/2017