

FLUCONAZOLE

Trade Name	Fluconazole –Clarix infusion (AFT) Diflucan Suspension (Pfizer)										
Class	Triazole antifungal agent										
Mechanism of Action	Inhibits cytochrome P450 in susceptible fungi leading to reduced cell membrane permeability.										
Indications	<p>Indication 1: Fungal prophylaxis</p> <p>Infants <28 weeks Infants 28-32 weeks and colonised with yeast Prolonged antibiotic courses >7 days Postnatal steroids Surgical infants with long term central access</p> <p>Oral Nystatin is the preferred fungal prophylaxis If NBM use fluconazole iv and change to oral nystatin ASAP</p> <p>Indication 2: Treatment of serious fungal infection</p>										
Contraindications	Hypersensitivity to fluconazole. Caution in use with other meds that affect QT interval										
Supplied As	<p>IV: Clear solution for infusion: 200mg/100 mL *No further dilution required</p> <p>Oral: Dry powder for reconstitution to form oral suspension * The displacement value of the fluconazole powder is 11mL</p> <table border="1"> <thead> <tr> <th>Bottle</th> <th>Water Added</th> <th>Final Volume</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td>350mg</td> <td>24mL</td> <td>35mL</td> <td>10mg/mL</td> </tr> </tbody> </table>			Bottle	Water Added	Final Volume	Concentration	350mg	24mL	35mL	10mg/mL
Bottle	Water Added	Final Volume	Concentration								
350mg	24mL	35mL	10mg/mL								
Dosage	<p>Indication 1: Fungal prophylaxis maintenance dose 3mg/kg iv change to nystatin when can give orally</p> <p>Indication 2: Mucosal infection (includes ETT colonisation) loading dose 6mg/kg, maintenance 3mg/kg/dose</p> <p>Isolated Candiduria loading dose 12mg/kg, maintenance 6mg/kg/dose</p> <p>Suspected Candidaemia (includes pneumonia) loading dose 12mg/kg, maintenance 6mg/kg/dose (increase to 12mg/kg/dose if blood culture positive)</p> <p>Confirmed Candidaemia (includes deep infection or meningitis) loading dose 12mg/kg, maintenance 12mg/kg/dose</p>										

Interval	Day	Interval (hourly)
	<14	72
	14-28	48
	>28	24
Administration	Oral – good absorption, can be given with feeds IV – infuse over 30 minutes.	
Compatible With	Dextrose 5 or 10%, sodium chloride 0.9%, lactated ringers Y- site compatibility Acyclovir, amikacin, aminophylline, amiodarone, aztreonam, benzylpenicillin, caspofungin, cefazolin, cefepime, cefoxitin, cimetidine, dexamethasone, dobutamine, dopamine, famotidine, ganciclovir, gentamicin, heparin, hydrocortisone, intravenous immune globulin (human), linezolid, lorazepam, meropenem, metoclopramide, metronidazole, midazolam, morphine, nitroglycerin, oxacillin, pancuronium, phenytoin, piperacillin/tazobactam, potassium chloride, propofol, ranitidine, remifentanyl, sodium bicarbonate (4.2%), ticarcillin/clavulanate, tobramycin, TPN, vancomycin, vecuronium, and zidovudine.	
Incompatible With	Amphotericin B, ampicillin, calcium gluconate, cefotaxime, ceftazidime, ceftriaxone, chloramphenicol, clindamycin, digoxin, erythromycin lactobionate, furosemide, imipenem, lipid, piperacillin, ticarcillin, and trimethoprim/sulfamethoxazole	
Interactions	Potential increased risk of QT prolongation with other medicines that also affect QT e.g. cisapride and erythromycin May interfere with metabolism and increase levels of caffeine, aminophylline, midazolam phenobarbitone and phenytoin.	
Monitoring	Assess renal function, AST, ALT, CBC for eosinophilia	
Stability	IV: Single use only. Do not use IV solution if cloudy. Oral: Discard unused portion after 14 days.	
Storage	Room temperature less than 30°C. Do not refrigerate	
Adverse Reactions	Increase in transaminases in 12% of children. Hypokalaemia, increased cholesterol and lipids, hepatotoxicity, pruritis, rash including exfoliative skin reaction, nausea, vomiting, abdominal pain, diarrhoea, headache.	
Metabolism	Mostly excreted unchanged in the urine - increase dose interval in renal impairment. T1/2 50-90 hrs decreases with increasing age	
Comments	Interferes with metabolism of phenobarbitone and phenytoin. May interfere with metabolism of caffeine, aminophylline, midazolam. Presence of food decreases rate of fluconazole absorption Sodium content 15.4 mmol/ 100mL.	

References	<ol style="list-style-type: none"> 1. Trissell handbook on Injectable Drugs 10th Edition. 2. NZHPA Notes on Injectable Drugs 5th Edition. 3. Neofax 1998 11th ed. 4. Waikato drug manual 5. BNF for Children 2009 6. Fluconazole prophylaxis in the NICU. Healy CM. Pediatric Infectious Disease Journal, January 2009 7. www.micomedexsolutions.com 8. https://www.seslhd.health.nsw.gov.au/sites/default/files/migration/RHW/Neu born_Care/Guidelines/Medication/2015/flucon15.pdf
Updated By	<p>P Schmidt, B Robertshawe October 2004 A Lynn, N Austin Feb 2009 A Lynn, B Robertshawe September 2009, Nov 2010 A Lynn, B Robertshawe June 2012 (re-order profile) A Lynn, B Robertshawe July 2020 M Wallenstein, A Lynn, B Robertshawe September 2020 (update admin & compatibilities)</p>