Alert
The Antimicrobial Stewardship Team recommends this drug is listed under the following category: Restricted.

Indication
Treatment of systemic infection and meningitis caused by susceptible *Candida* species. Prophylaxis from *Candida* infection.

Action
Triazole antifungal which selectively inhibits fungal cytochrome P-450 sterol C-14 alpha demethylation.

Drug Type
Antifungal.

Trade Name
IV: Diflucan, Fluconazole Alphapharm, Aspen, Claris, Hexal, Sandoz. ORAL: Diflucan

Presentation
IV: 2 mg/mL injection
ORAL: 50 mg/5mL powder for reconstitution

Dosage / Interval
TREATMENT
Loading dose: 25 mg/kg
Maintenance dose: 12 mg/kg DAILY to start 24 hours after loading dose.

The regimen without a loading dose may take up to 5 days to reach steady state. Steady state can be reached in 2 days if a loading dose is used.

PROPHYLAXIS*
6 mg/kg TWICE per week

*Fluconazole prophylaxis may be considered in high risk infants following completion of treatment for *Candida* sepsis but still carrying risk of recurrence- e.g., presence of indwelling catheters and ongoing skin thrush.

Route
IV, Oral

Preparation/Dilution
IV: Administer 2 mg/mL injection –no dilution necessary.

Oral: Powder normally reconstituted by Pharmacy. If supplied as dry powder reconstitute using water for injection with the volume specified on the bottle.

Administration
IV: Infusion over 30 minutes via a syringe pump.

Oral: Can be given with feeds. Shake reconstituted bottle well before drawing up dose.

Monitoring
Measure serum creatinine prior to starting therapy.
Monitor liver function, renal function and full blood count.

Contraindications
Cardiac rhythm problems– may increase QT interval.
Hypersensitivity to fluconazole or other constituents.
Concurrent therapy with other drugs known to prolong the QT interval and those drugs which are metabolised via the enzyme CYP3A4 e.g., cisapride, erythromycin.

Precautions
Consider extending dose interval to 48 hourly if creatinine > 115 micromol/L.
Use with caution in hepatic impairment.
May precipitate or worsen hyperbilirubinaemia, use with caution.
May increase QT interval.

Drug Interactions
Erythromycin: Concurrent use increases the risk of cardiotoxicity (prolonged QT interval, torsades des pointes) therefore avoid combination.
Barbiturates, caffeine, benzodiazepines and phenytoin: Serum concentrations increased by fluconazole, consider dose reduction and therapeutic drug monitoring.
Hydrochlorothiazide: Increases fluconazole serum concentration, consider dose reduction of fluconazole.
Zidovudine: Concentrations are increased by fluconazole; monitor for adverse reactions (anaemia, neutropenia) and extend dose interval.
Cisapride: May precipitate arrhythmias, therefore contraindicated.
**Adverse Reactions**
Rare: Rash, elevated LFTs, leucopenia including neutropenia and agranulocytosis and thrombocytopenia.

**Compatibility**
Fluids: Glucose 5%, glucose 10%, sodium chloride 0.9%

Y-Site: Amino acid solutions, aciclovir, amifostine, amikacin, aminophylline, amiodarone, anidulafungin, aztreonam, benztrpine, bivalirudin, calcium folinate, cefoxitin, ceftaroline fosamil, cephalzin, chlorpromazine, cisatracurium, dexamethasone, dexmedetomidine, dobutamine, dopamine, droperidol, filgrastim, foscarinet, ganciclovir, gentamicin, glyceryl trinitrate, granisetron, heparin sodium, linezolid, metoclopramide, metronidazole, midazolam, morphine sulfate, pancuronium, pethidine, piperacillin-tazobactam (EDTA-free), promethazine, ranitidine, remifentanil, ticarcillin-clavulanate, tacrolimus, tigecycline, tobramycin, vancomycin, vecuronium, zidovudine.

**Incompatibility**
Y-site: Ampicillin, calcium gluconate, cefotaxime, ceftazidime, ceftriaxone, chloramphenicol, clindamycin, digoxin, frusemide, imipenem-cilastatin, gentamicin, imipenem, meropenem, metronidazole, penicillin, potassium chloride, probenecid, teicoplanin, vancomycin.

**Stability**
Vials: Discard remaining contents after use.
Oral suspension: Discarded 14 days after reconstitution.

**Storage**
Vial and powder for reconstitution: Store below 25°C
Reconstituted suspension: Store between 5–30°C

**Special Comments**
IV and oral doses are equivalent.

**Evidence summary**
Treatment dose: 12 mg/kg 24 hourly supported by pharmacokinetic data and Monte Carlo simulations (1,2; Grade B).
Loading dose: 25 mg/kg loading dose is shown in Monte Carlo simulations to achieve target AUC by day 2 (2; Grade B).
Post-treatment prophylaxis – expert opinion by Infectious Disease members of the Neomed Group.

**References**
7. Trissel’s IV Compatibility, accessed 04/08/2015 via Micromedex 2.0

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