

Fluconazole (Diflucan™)

Spectrum of Activity:

- Fluconazole has antifungal coverage against most *Candida* spp., *Cryptococcus*, and *Coccidioides*
- Coverage gaps:
 - *Candida krusei* (intrinsic resistance), *Candida glabrata* (often requires higher doses)

Acceptable uses

- Prophylaxis
 - High-risk liver transplant, defined as ≥ 2 of the following:
 - Renal failure
 - Retransplantation
 - Choledochojejunostomy
 - Intraoperative use of >40 U of blood products
 - Fungal colonization detected at least 2 days before and 3 days after transplantation
 - Neutropenia
 - Lymphoma, myeloma, ALL, stem cell transplant
- Treatment
 - Candidiasis
 - Coccidioidomycosis

Unacceptable uses

- Should be avoided in pregnancy except for single dose treatment of vulvovaginal candidiasis due to teratogenic potential

Dosing

- Prophylaxis:
 - High risk liver transplant: 200-400mg daily for 7-14 days
 - Neutropenia: 400mg daily
- Candidiasis (non-blood): 200-400mg daily
- Candidemia: 800mg (12mg/kg) x 1, followed by 400mg (6mg/kg) daily
- Dose-dependent susceptibility (S-DD) candidal infections: 800mg (or 12m/kg) daily
- Dose adjustments:
 - CrCl < 50 ml/min (no dialysis): Reduce dose by 50%
 - Hemodialysis: 100-200mg q24h
 - CRRT: 200-400mg q24h (CVVH), 400mg-800mg q 24h (CVVHD/CVVHDF)

Monitoring

- Adverse Reactions: Headache, reversible hair loss, anorexia, elevated LFTs, prolonged QTc
- Labs/Tests: AST/ALT at baseline and every 1-2 weeks after, baseline ECG, renal function

Drug interactions: As a CYP-enzyme inhibitor, fluconazole has significant drug interactions including oral anticoagulants, anti-epileptics, anti-arrhythmics, SSRIs, antipsychotics, and immunosuppressants. Unlike other azoles, an interaction with vinca alkaloids is generally considered to be minor. If used in conjunction with other QTc prolonging medications, consider baseline ECG and between 3-7 days after therapy initiation.