Table 1. Antifungal Therapies for the Treatment of Coccidioidomycosis in Transplant Recipients

Medication	Indication	Dose	Duration	Other
First Line Treatments				
Amphotericin Liposomal preparations	Life-threatening or rapidly progressing infection	5 mg/kg/day	Until the rapid progression of infection is controlled, then transition to an azole alone	Consider adding concurrent azole in severe life-threatening infection. Monitor serum creatinine and K, Mg
Fluconazole*	Most non-life-threatening infections	400 – 800 mg daily	Full treatment dose until clinically resolved, then lifelong secondary prophylaxis 200-400 mg	
	Meningitis (fluconazole preferred)	400 – 800 mg daily	Lifelong	Higher doses preferred by experts
Itraconazole*	Most non-life-threatening infections	200 mg BID - TID	Indefinite duration; full treatment dose until completely resolved, then change to the lower dose or fluconazole as secondary lifelong prophylaxis	Monitor serum itraconazole and hydroxyitraconazole
	Skeletal infections (itraconazole preferred)	200 mg BID – TID	Indefinite duration; full treatment dose until infection resolved, then continued secondary prophylaxis.	
Second Line Antibiotics				
Posaconazole*	Most non-life-threatening infections, when first line therapies fail or not tolerated	400 mg BID orally	Indefinite duration; full treatment dose until completely resolved, then consider a lower dose as secondary lifelong prophylaxis.	
Voriconazole*	Most non-life-threatening infections, when first line therapies fail or are not tolerated	6 mg/kg BID x 2 doses, then 4mg/kg BID, or 200-300 mg BID	Indefinite duration, full treatment dose until completely resolved, then consider the lower dose as secondary lifelong prophylaxis.	

*All azoles have drug interactions with calcineurin inhibitors

Table 2. Targeted Prophylaxis for Coccidioidomycosis in Solid Organ Transplant Recipients at Mayo Clinic Arizona (8)

1. For recipients with a prior history of coccidioidomycosis a. A physician's diagnosis is required for patient to qualify for this prophylaxis schedule. The patient is usually able to describe a compatible clinical illness. Corroborating medical records are helpful but not required. b. Patients do not receive this prophylaxis if they think they may have had coccidioidomycosis because of time spent in the endemic area, self diagnosis, or granuloma on chest radiograph. c. Chest radiograph, serology must be negative for this prophylaxis schedule. d. Following transplantation, oral fluconazole 200 mg daily for 6 months.
2. For recipients with positive serology at transplantation evaluation or surgery. a. Any positive serology by enzyme immunoassay, complement fixation or immunodiffusion. b. Fluconazole 400 mg daily by oral route for the first year, then 200-400 mg daily thereafter for the duration of immunosuppression.
3. For recipients with active coccidioidomycosis within 1-2 years of transplantation a. Patients with a compatible clinical illness with positive serology, chest radiograph, or asymptomatic seroconversion (documented negative serology followed by positive serology). b. Infection must have resolved clinically, serologically, and radiographically. Patient must be cleared for transplantation by Infectious Diseases in consultation with the transplant team. c. Fluconazole 400 mg* daily for the first year following transplantation, then 200-400 mg daily thereafter.
4. Active infection at pre-transplantation evaluation or transplantation surgery. a. Defer from transplantation until patient meets criteria 3A above. b. If infection discovered after transplantation, treat initial infection, then give prophylaxis with lifelong fluconazole 400 mg* daily for first year, then 200-400 mg daily thereafter, in conjunction with Infectious Disease consultation.
5. Active Coccidioidomycosis or positive serology in donor. a. Lifelong prophylaxis fluconazole 400 mg daily for first year, then 200 mg daily thereafter.

*Unless higher doses were required to control infection