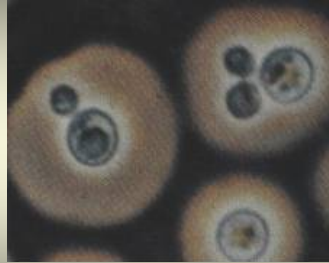




Cryptococcus neoformans: Awakening of a Giant?



“Susceptibility Profile of Brazilian Environmental *Cryptococcus neoformans* Isolates to Three Azole Drugs”

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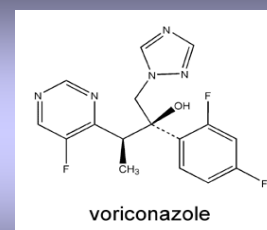
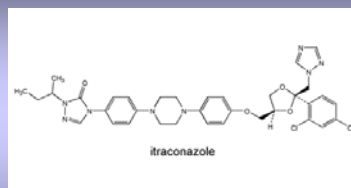
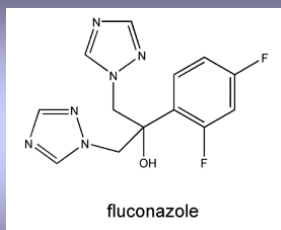
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We thank FAPESP and CNPQ for financial support

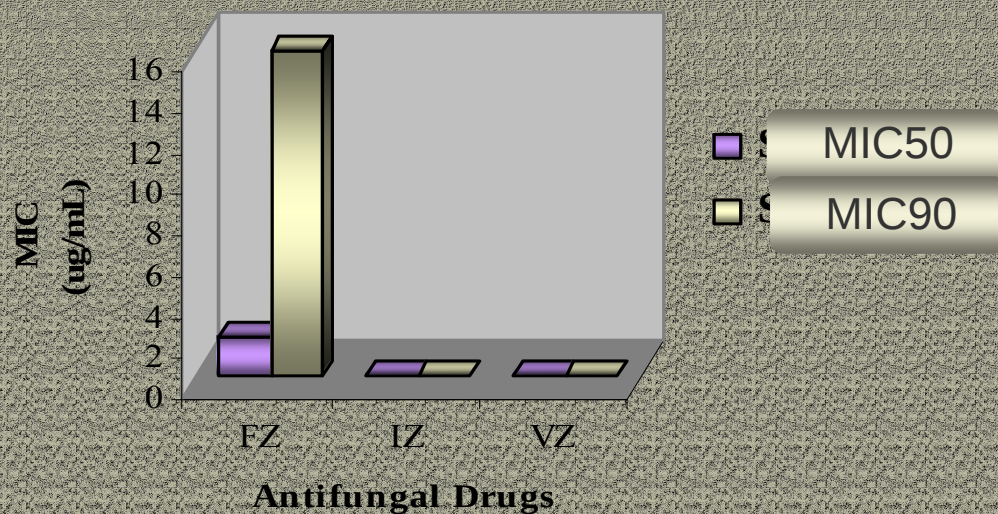
● Antifungal Drugs: AZOLES



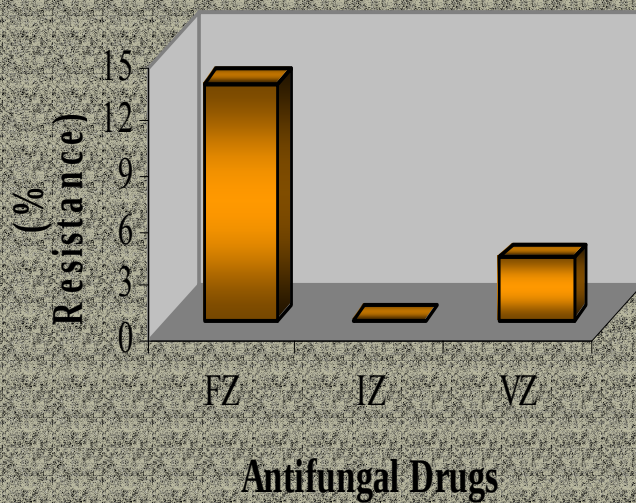
● Interpretative Guidelines for Susceptibility Testing *in vitro* Adopted to *C. neoformans*

Antifungal Agent	Susceptible (S)	Susceptible-dose Dependent (S-DD)	Resistant (R)
Fluconazole	≤ 8	16-32	≥ 64
Itraconazole	≤ 0.125	0.25-0.5	≥ 1
Voriconazole	≤ 0.125	—	≥ 1

■ EUCAST / NCCLS, 2002



MIC 50 and MIC 90 of *C. neoformans* environmental isolates



Evaluation of resistance *in vitro* of *C. neoformans* environmental isolates to azoles

■ n=114 strains of *C. neoformans*

**Comparative survey of susceptibility pattern:
clinical (n=20) and environmental (n=20)
Brazilian isolates**

Drug and isolate groups	N ^a tested isolates	Drug Range	MIC (µg/mL) ^a 50 %	MIC (µg/mL) ^a 90%
Fluconazole				
Environmental	20	1-32	8	16
Clinical	20	0.12-64	4	8
Control	1	48		
Itraconazole				
Environmental	20	0.015-0.5	0.06	0.12
Clinical	20	0.015-0.06	0.015	0.06
Control	1	0.06-0.12		
Voriconazole				
Environmental	20	0.03-4	0.12	0.25
Clinical	20	0.015-0.25	0.06	0.25
Control	1	0.06-0.12		

^a50% and 90% are MICs at which, respectively, 50 and 90% of the isolates are inhibited

Some Definitions

Breakpoint: sensitivity limit of interpretation

S (susceptible): antifungals that are most likely to work

I (Intermediate): antifungals that might work if pharmacokinetics and dosing are right adjusted to each one

SDD (Susceptible-dose-dependent): susceptibility is dependent on achieving the maximal possible blood level of the antifungal agent

R (Resistance): antifungals that aren't most likely to work

MIC: Minimum Inhibitory Concentration

