

## Antifungal Therapy

### Amphotericin B

This agent is useful in treating candidiasis, cryptococcosis, histoplasmosis, blastomycosis, paracoccidiomycosis, coccidiomycosis, aspergillosis, extracutaneous sporotrichosis, and mucormycosis.

### 5-Flucytosine

This agent is useful in treating candidiasis, cryptococcosis and smaller lesions of chromomycosis. It can also be used with amphotericin B in aspergillosis and extracutaneous sporotrichosis.

### Ketoconazole

This agent is the drug of choice for chronic mucocutaneous candidiasis and indolent cases of extra-meningeal blastomycosis, histoplasmosis, and paracoccidiomycosis in immunocompetent patients.

### Itraconazole

This agent is useful in treating histoplasmosis, blastomycosis, coccidiomycosis, tinea pedis, tinea manuum, tinea versicolor, onychomycosis, and oral, vaginal and esophageal thrush.

### Fluconazole

This agent is effective in treating oral or esophageal candidiasis and cryptococcus in AIDS patients.

### Griseofulvin

This is an antibiotic produced by a *Penicillium* species. It is active against ringworm of the skin, nails or hair due to *Trichophyton*, *Epidermophyton*, and *Microsporum* species. Yeast are resistant to this agent.

### Nystatin

This is a topical preparation used for the treatment of *Candida* sp. infections of the skin and mucous membranes.

## **Fungal Susceptibility Testing**

### **I. Principle and Clinical Significance:**

Disk diffusion for *Candida* spp. against fluconazole and voriconazole is performed in-house on clinically significant isolates. Other susceptibility testing on fungal isolates is not performed at SHMC. If the physician requests susceptibility testing, the isolate is sent to ARUP Laboratories.

### **II. Procedure:**

- A. Contact the physician to determine what anti-fungal agents are to be tested.
- B. Prepare a subculture of the isolate on 2 Sabouraud or Brain Heart Infusion Agar slants.
- C. Label the slants with the patient name, date, and fungal identification.
- D. Incubate the slants overnight or until visible growth is obtained.
- E. Give one slant to the send-out department and include all of the pertinent information, including the list of anti-fungal agents to be tested.
- F. Inform the send-out department that this must be packaged as biohazardous material.

### **III. Reporting:**

When results are received, the send-out department will forward a copy to the ordering physician and attach "See Separate Report" to the computer report.

### **IV. Document Control**

Effective: 05/01/2000

Reviewed by director (AR): 05/16/2000

Reviewed by Joseph Schappert: 03/10/2010

Reviewed by supervisor (JC): 05/16/2000, 06/14/2001, 03/04/2002, 03/2003, 04/2004, 06/2005, 06/2006, 06/2007, 2/6/2008, 7/2009, 3/31/2011, 04/01/2011, 03/2013, Jason Ammons 07/2015

Updates: 02/06/2008 Added reference for *Candida* disk diffusion testing (JC).