

**ANTIMICROBIALS**  
**ANTIFUNGALS**

Ringworm:

Microsporum spp,  
Trichophyton spp

Candidia

Systemic fungal infections:

Aspergillus spp



**ANTIMICROBIALS**  
**ANTIFUNGALS**  
**Griseofulvin**

GRISEOFULVIN

(Penicillium griseofulvum)

Microtubular toxin - active uptake by fungi

- inhibits fungi (slow acting fungistatic)
- keratin precursor/stratum corneum



**ANTIMICROBIALS**  
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GRISEOFULVIN (microsize, ultramicrosize)

**Absorption:** improved with fatty foods

**Distribution:** keratinised tissues, fat, liver, skeletal muscle

**Liver metabolism:** inactivated

induces hepatic mixed function oxidase

**Excretion:** urine

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GRISEOFULVIN

Contraindications:

- liver disease
- hypersensitivity
- pregnancy
- cats with FIV

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**GRISEOFULVIN**

**Adverse Effects:**

- teratogenic
- diarrhoea, depression, anorexia, fever
- anaemia, leukopaenia, neutropenia
- hepatotoxicity (uncommon)
- neurological effects in kittens - ataxia

**ANTIMICROBIALS  
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**AMPHOTERICIN B**

- Polyene antibiotic

Binds to ergosterol

- fungal cell membrane



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**AMPHOTERICIN B - USES:**

- Systemic infections
  - Aspergillosis, etc
- Yeast infections
  - candidia



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**AMPHOTERICIN B**

- Not absorbed orally
- IV in 5% dextrose
- Poor distribution to CNS, eye, muscle or bone
- Elimination - slow binds to lipids

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**AMPHOTERICIN B - Adverse Effects**

- Renal toxicity  
    Monitor renal function

Note: Newer formulations with liposomes or lipid complexes reduce nephrotoxicity

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**AMPHOTERICIN B - Side Effects**

- Fever
- Anorexia
- Nausea

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**AZOLES**

- MICONAZOLE
- KETOCONAZOLE
- CLOTRIMAZOLE
- ITRACONAZOLE
- FLUCONAZOLE
- ENILCONAZOLE



**ANTIMICROBIALS  
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**AZOLES**

- Inhibit ergosterol synthesis
- Broad spectrum
- Dose dependent - static or cidal

## ANTIMICROBIALS ANTIFUNGALS

### AZOLES - USES

- systemic fungal infections
  - nasal aspergillosis
- yeast infections
- hyperadrenalcorticism



## ANTIMICROBIALS ANTIFUNGALS

### AZOLES - SIDE EFFECTS

- anorexia, vomiting and/or diarrhoea
- depression
- hepatotoxicity
- suppression of adrenal & gonad steroids

## ANTIMICROBIALS ANTIFUNGALS

### SUMMARY

#### **Griseofulvin**

Fungistatic, ringworm, slow action,  
keratin deposition, teratogenic, fatty  
meals ↑ absorption

**Polyenes (amphotericin B)** - nephrotoxic

**Azoles (ketoconazole)** - systemic mycoses