



Bonus Monographs



Griseofulvin microsize

(griz-ee-oh-**FULL**-vin)

PREGNANCY CATEGORY: C

CLASSIFICATION(S):

Antibiotic, antifungal

Rx: Fulvicin-U/F, Grifulvin V

Griseofulvin ultramicrosize

(griz-ee-oh-**FULL**-vin)

PREGNANCY CATEGORY: C

Rx: Fulvicin-P/G, Grisactin Ultra, Gris-PEG, Ultramicrosize Griseofulvin

SEE ALSO ANTI-INFECTIVES.

ACTION/KINETICS

Derived from a species of *Penicillium*. Is deposited in keratin precursor cells which are exfoliated gradually and replaced by noninfected tissue. Believed to interfere with cell division (metaphase) or DNA replication. Is tightly bound to the new keratin which becomes highly resistant to fungal infection. Absorbed from the duodenum. **Peak plasma concentration:** 0.5–2 mcg/mL after 4 hr. **t_{1/2}:** 9–24 hr. Levels may be increased by giving the drug with a high-fat diet. GI absorption of the ultramicrosize products is about 1.5 times that of the microsize products; no evidence that this causes any difference in the safety and effectiveness of the drug compared with the microsize form.

USES

(1) Tinea (ringworm) infections of skin (including athlete's foot), scalp, groin, and nails. (2) Tinea corporis, tinea pedis, tinea barbae, tinea unguium, tinea cruris, tinea capitis due to *Trichophyton* species, *Microsporum audouinii*, *M. canis*, *M. gypseum*, and *Epidermophyton floccosum*. (3) Only PO drug effective against dermatophytid (tinea ringworm) infections. Not effective against *Candida*. Establish susceptibility of the infectious agent before treatment is begun.

CONTRAINDICATIONS

Pregnancy. Porphyria or history thereof, hepatocellular failure, and hypersensitivity to drug. Exposure to artificial light or sunlight. Use for infections due to bacteria, candidiasis, actinomycosis, sporotrichosis, tinea versicolor, histoplasmosis, chromoblastomycosis, coccidioidomycosis, cryptococcosis, and North American blastomycosis.

SPECIAL CONCERNS

Cross sensitivity with penicillin is possible. Safety and efficacy for prophylaxis of fungal infections not determined.

SIDE EFFECTS

Hypersensitivity: Rashes, urticaria, **angioneurotic edema**, allergic reactions, erythema multiforme-like reactions. **GI:** N&V, diarrhea, epigastric pain, **GI bleeding**. **CNS:** Dizziness, headache, confusion, mental fatigue, insomnia, impaired performance of routine activities. **GU:** Proteinuria, menstrual irregularities, nephrosis. **Miscellaneous:** Oral thrush, acute intermittent porphyria, paresthesias

2 GRISEOFULVIN

of extremities after long-term therapy, leukopenia, photosensitivity, worsening of lupus erythematosus, hepatic toxicity, granulocytopenia.

LABORATORY TEST CONSIDERATIONS

↑ ALT, AST, alkaline phosphatase, BUN, and creatinine level values.

DRUG INTERACTIONS

Alcohol, ethyl / Tachycardia and flushing

Anticoagulants, oral / ↓ Anticoagulant effect R/T ↑ liver breakdown

Barbiturates / ↓ Effect of griseofulvin R/T ↓ GI tract absorption

Cyclosporine / ↓ Plasma cyclosporine levels → ↓ pharmacologic effect

Oral contraceptives / ↓ Oral contraceptive effect → breakthrough bleeding, pregnancy, or amenorrhea

Salicylates / ↓ Serum salicylate levels

HOW SUPPLIED

Griseofulvin microsize: *Capsule:* 250 mg; *Suspension:* 125 mg/5 mL; *Tablet:* 250 mg, 500 mg. **Griseofulvin ultramicrosize:** *Tablet:* 125 mg; 165 mg; 250 mg; 330 mg

DOSAGE

• CAPSULES, ORAL SUSPENSION, TABLETS

Tinea corporis, cruris, or capitis.

Adults: 0.5 g griseofulvin microsize daily in a single dose or divided dose (or 330–375 mg ultramicrosize).

Tinea pedis or unguium.

Adults: 0.75–1 g/day of griseofulvin microsize (or 660–750 mg ultramicrosize). After response, decrease dose of microsize to 0.5 g/day. **Pediatric, 13.6–22.6 kg:** 125–250 mg griseofulvin microsize daily (or 82.5–165 mg ultramicrosize); **pediatric, over 22.6 kg:** 250–500 mg microsize daily (or 165–330 mg ultramicrosize). **NOTE:** Dose has not been determined in children less than 2 years of age.

NURSING CONSIDERATIONS

SEE ALSO GENERAL NURSING CONSIDERATIONS FOR ANTI-INFECTIVES.

ADMINISTRATION/STORAGE

Assure sufficient length of treatment; i.e., treatment for tinea capitis: 4 to 6 weeks; 2 to 4 weeks for tinea corporis; 4 to 8 weeks for tinea pedis; and 4 to 6

months (fingernails) and 6 to 18 months (toe nails) for tinea unguium.

ASSESSMENT

1. Document location, size, and characteristics of skin infection.
2. Obtain baseline CBC, renal and LFTs and monitor with prolonged therapy. Obtain cultures and scrapings as needed.
3. May not be the drug of choice with CAD and hyperlipidemia due to the high-fat consumption necessary to enhance absorption.

CLIENT/FAMILY TEACHING

1. Eat high-fat food with drug (i.e., ice cream, bread and butter, gravy, fried chicken); fat enhances absorption of griseofulvin from the intestines.
 2. Take all medication as prescribed to prevent any recurrence of infection. If the course of therapy is interrupted or not completed, therapy may have to be started all over again.
 3. Practice appropriate hygiene to prevent reinfection.
 4. Avoid exposure to intense natural and artificial light because photosensitivity reactions may occur. Wear protective clothing, sunglasses, and a sunscreen if exposure is necessary.
 5. Report any fever, sore throat, and malaise, (all symptoms of leukopenia).
 6. Use a nonhormonal form of birth control.
 7. To be considered cured, repeated cultures and scrapings of affected sites must be negative.
 8. Persistent N&V and diarrhea and any mental confusion should be reported immediately.
 9. Avoid alcohol during therapy.
 10. Anticipate long-term therapy, i.e., 2 weeks to 18 months depending on location of infection. Usual duration of treatment for tinea capitis (scalp ringworm), 2–4 weeks; tinea corporis (body ringworm), 2–4 weeks; tinea pedis (athletes foot), 4–8 weeks; tinea unguium (nail fungus), at least 4 weeks for fingernails, and 6 or more mo for toenails depending on rate of growth.
- ### OUTCOMES/EVALUATE
- Improvement in symptoms
 - Clearing of rash
 - Negative cultures and scrapings