Griseofulvin (gri-see-oh-full-vin)

Classification: Therapeutic: antifungals (systemic)

Pregnancy Category: C

Indications
- Treatment of various tinea infections. Should not be used for superficial infections that may respond to topical antifungals.

Action
- Inhibits mitosis of fungal cells. Deposits in precursor cells of hair, skin, and nails, making them resistant to fungal invasion.

Therapeutic Effects:
- Growth of new cells that are resistant to invasion by fungi.

Pharmacokinetics
- Absorption: Microsize preparations are variably (25–70%) absorbed after oral administration. Ultramicrosize products are almost completely absorbed.
- Distribution: Mostly deposited in keratin layer of skin; also found in liver, fat, and skeletal muscle.
- Metabolism and Excretion: Metabolized by the liver, some excreted in feces and perspiration.
- Half-life: 9–24 hr.

Contraindications/Precautions
- Contraindicated in: Hypersensitivity; Severe liver disease or porphyria.
- Use Cautiously in: OB, Lactation: Safety not established; Possible cross-sensitivity with penicillin.

Adverse Reactions/Side Effects
- CNS: headache, dizziness.
- GI: hepatotoxicity, abdominal pain, vomiting. Diarrhea, nausea, vomiting.
- Derm: skin rashes, urticaria.
- Other: hypersensitivity reactions including serum sickness, lupus-like syndrome.

Interactions
- Drug-Drug: May increase warfarin, hormonal contraceptive agents. May increase tachycardia, flushing, and "Q T" interval; may result in altered perception, behavior, or mood. Use with caution with alcohol. Cross-sensitivities: Immunoassays may cross-react with cephalosporins, penicillins, or penicillin derivatives.

Drug-Food: Absorption is decreased by fatty foods.

Route/Dosage
- Microsize
  - PO (Adults): Tinea pedis, onychomycosis—500 mg q 12 hr. Tinea capitis, corporis, or cruris—250 mg q 12 hr or 500 mg once daily.
  - PO (Children ≥21 kg): 125–250 mg q 12 hr or 250–500 mg once daily.
  - PO (Children 16–23 kg): 62.5–125 mg q 12 hr or 125–250 mg once daily.

- Ultramicrosize
  - PO (Adults): Tinea pedis, onychomycosis—375 mg q 12 hr. Tinea capitis, corporis, or cruris—187.5 mg q 12 hr or 375 mg once daily.
  - PO (Children ≥27 kg): 187.5–375 mg once daily.
  - PO (Children 16–27 kg): 125–187.5 mg once daily.

NURSING IMPLICATIONS
- Assessment
  - Monitor skin at site of fungal infection routinely throughout course of therapy.
  - Assess patient for allergies to penicillin; potential cross-sensitivity exists.
  - Assess for rash periodically during therapy. May cause Stevens-Johnson syndrome or toxic epidermal necrolysis. Discontinue therapy if severe or if accompanied with fever, general malaise, fatigue, muscle and joint aches, blisters, oral lesions, conjunctivitis, hepatitis and/or eosinophilia.
  - Lab Test Considerations: CBC, serum creatinine, and hepatic functions should be monitored periodically throughout treatment.

Nursing Diagnoses
- Risk for impaired skin integrity (Indications)
- Risk for infection (Indications) (Side Effects)
- Deficient knowledge, related to medication regimen (Patient/Family Teaching)
Implementation

● Concurrent use of a topical agent is usually required.
● Ultramicrosize griseofulvin 250 mg provides serum concentrations equal to that of microsize griseofulvin 500 mg.
● PO: Administer with or after meals, preferably meals with high fat content, to minimize GI irritation and increase absorption.

Patient/Family Teaching

● Instruct patient to complete full course of therapy; several weeks of therapy may be necessary. If a dose is missed, take as soon as remembered, but do not take if almost time for next dose.
● Instruct patient on hygiene to control sources of infection or reinfection.
● May cause diarrhea. Caution patient to avoid driving or other activities requiring alertness until response to medication is known.
● Advise patient to wear sunscreen and protective clothing to prevent photosensitivity.
● Caution patient not to drink alcohol while taking this medication.
● Advise patient to notify health care professional if rash, sore throat, fever, diarrhea, or symptoms of infection or reinfection occur.
● Advise patient to notify health care professional of all Rx or OTC medications, vitamins, or herbal products being taken and to consult with health care professional before taking other medications.
● Advise female patients taking oral contraceptives to use an additional nonhormonal form of contraception during therapy and until one menstrual period and to notify health care professional if pregnancy is planned or suspected.
● Emphasize importance of follow-up examinations to monitor progress of therapy.

Evaluation/Desired Outcomes

● Resolution of signs and symptoms of fungal infection. To prevent relapse, treatment may take weeks to months and should continue until organism is completely eradicated as determined by clinical or laboratory testing. Tinea capitis usually requires treatment for 8–10 wk; tinea corporis, 2–4 wk; tinea pedis, 4–6 wk; onychomycosis, at least 6 mo for fingernails and at least 12 mo for toenails (recurrence rates for toenails are very high).

Why was this drug prescribed for your patient?