tinidazole

**Classification**
- Therapeutic: antiprotozoals
- Pharmacologic: imidazoles

**Pregnancy Category:** C

**Indications**
- Bacterial vaginosis
- Trichomoniasis
- Giardiasis
- Amebiasis

**Action**
- Interaction with protozoa results in release of a free nitro radical that has antiprotozoal activity.

**Therapeutic Effects:** Resolution of protozoal infections.

**Spectrum:**
- Active against *Trichomonas vaginalis*, *Giardia duodenalis* (also known as *Giardia lamblia*), and *Entamoeba histolytica*.

**Pharmacokinetics**
- **Absorption:** Rapidly and completely absorbed following oral administration.
- **Distribution:** Extensively distributed; crosses placenta and blood-brain barrier, enters breast milk.
- **Metabolism and Excretion:** Mostly metabolized (CYP3A4 enzyme system); 20–25% excreted unchanged in urine, 12% excreted in feces.
- **Half-life:** 12–14 hr.

**TIME/ACTION PROFILE (blood levels)**
- **ROUTE**
- **ONSET**
- **PEAK**
- **DURATION**
- **PO**
  - rapid
  - 2 hr
  - 24 hr

**Contraindications/Precautions**
- **Contraindicated in:**
  - Hypersensitivity; cross sensitivity with other imidazoles may occur; OB: First trimester of pregnancy; Lactation: Lactation.

- **Use Cautiously in:**
  - CNS pathology; History of blood dyscrasia; Hemodialysis (removes significant amount of tinidazole; requires concurrent anticoagulation therapy); Pedi: Children <3 yr (safety not established).

**Adverse Reactions/Side Effects**
- **CNS:** Dizziness, headache, malaise.
- **GI:** Constipation, dyspepsia, metallic/bitter taste, vomiting.
- **Hemat:** Transient leukopenia/neutropenia.

**Interactions**
- **Drug-Drug:**
  - Risk of bleeding with warfarin; Disulfiram-like reaction may occur with alcohol or propylene glycol; phototoxicity should be avoided for at least 2 weeks before tinidazole.
  - Levels of lithium, cytoxan, tacrolium (fluoroacton), and heparin (heparinase inhibitor for severity of administered concern) may change.
  - Drugs that induce the CYP450 liver enzyme system (phenobarbital, rifampin) may increase levels and effectiveness. Drugs that inhibit the CYP450 liver enzyme system (cimetidine, ketoconazole) may decrease levels.
  - Levels of lithium, cyclosporine, tacrolimus, fluoroacton, and heparin (heparinase inhibitor for severity of administered concern) may change.

- **Route/Dosage**
  - **PO (Adults):**
    - Bacterial vaginosis—1 g once daily for 5 days or 2 g once daily for 2 days.
    - Trichomoniasis and *Giardiasis*—2 g single dose.
    - Intestinal *amebiasis*—2 g once daily for 3 days.
    - *Amebic liver abscess*—2 g once daily for 3–5 days.
  - **PO (Children >3 yr):**
    - *Giardiasis*—50 mg/kg (up to 2 g) single dose.
    - Intestinal *amebiasis*—50 mg/kg once daily for 3 days.
    - *Amebic liver abscess*—50 mg/kg once daily for 3–5 days.

**NURSING IMPLICATIONS**

- **Assessment**
  - Monitor for symptoms of infection (discharge, itching) prior to and during therapy.
  - Monitor neurologic status during and after IV infusions. Report numbness, paresthesia, weakness, ataxia, or convulsions.

- **GI:**
  - Monitor three stool samples taken several days apart, beginning 3–4 wk after treatment.

- **Other:**
  - May cause transient leukopenia and neutropenia.

**Potential Nursing Diagnoses**
- Risk for infection (Indications)
- Diarrhea (Indications)
Implementation

- Symptoms of known or previously unrecognized candidiasis may become worse during therapy and require treatment with an antifungal agent.
- PO: Administer with food to decrease GI upset. May be crushed and prepared as a suspension in cherry syrup by pharmacist for patients unable to swallow tablets. Shake well before administering.

Patient/Family Teaching

- Instruct patient to take medication as directed, even if feeling better. Do not skip doses or double up on missed doses, if a dose is missed, take as soon as remembered but not almost time for next dose.
- Advise patients treated for trichomoniasis that sexual partners may be asymptomatic sources of reinfection and should be treated concurrently. Patients should also refrain from intercourse or use a condom to prevent reinfection.
- Caution patient to avoid intake of alcoholic beverages or preparations containing alcohol during and for at least 3 days after treatment with tinidazole. May cause a disulfiram-like reaction (flushing, nausea, vomiting, headache, abdominal cramps).
- May cause dizziness or drowsiness. Caution patient to avoid drinking or other activities requiring alertness or response to medication to be known.
- Inform patient that medication may cause an unpleasant metallic taste.
- Advise patient to inform 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 patient to inform health care professional if pregnancy is suspected or if breast feeding before taking this medication.

Evaluation/Desired Outcomes

- Resolution of signs and symptoms of infection.

Why was this drug prescribed for your patient?