albendazole (al-ben-da-zole)

**Classifications**

Therapeutic: anthelmintics

Pregnancy Category: C

**Indications**

Treatment of: Neurocysticercosis, Hydatid disease.

**Action**


**Pharmacokinetics**

**Absorption:** Poorly absorbed following oral administration because of extensive first-pass hepatic metabolism, resulting in rapid conversion to albendazole sulfoxide, the active metabolite.

**Distribution:** Widely distributed.

**Protein Binding:** 70% bound to plasma proteins.

**Metabolism and Excretion:** After conversion to the sulfoxide metabolite, further hepatic metabolism to inactive compounds occurs. 1% excreted in urine; excretion is primarily via bile.

**Half-life:** Albendazole sulfoxide—8–12 hr.

**TIME/ACTION PROFILE (blood levels of albendazole sulfoxide)**

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**Contraindications/Precautions**

**Contraindicated in:** Hypersensitivity, Hepatic dysfunction, Patients with neurocysticercosis involving the retina. **Use Cautiously in:** Women with childbearing potential. **Pregnancy:** Use in pregnancy only if potential benefit justifies potential risk, since a few instances of birth defects have been reported. **Lactation:** Not recommended for breast-feeding women. **Children:** Has been used safely in children 6 yr.

**Adverse Reactions/Side Effects**

**CNS:** Headache (increased in neurocysticercosis), dizziness/vertigo, increased intracranial pressure (increased in neurocysticercosis), ataxia, abnormal motor function (increased in hydatid disease), abdominal pain (Hydatid disease), nausea/ vomiting (increased in neurocysticercosis), tremor, reversible ataxia. **Hemat:** Leukopenia, neutropenia, thrombocytopenia. **Neuro:** Monoparesis (in neurocysticercosis only). **Misc:** Fever (hydatid disease only).

**Interactions**

**Drug-Drug:** Blood levels of albendazole sulfoxide are increased by concurrent dexamethasone and praziquantel. Albendazole may decrease blood levels of theophylline.

**Drug-Food:** Blood levels of albendazole sulfoxide are increased by concurrent ingestion of a high-fat meal.

**Route/Dosage**

**Hydatid Disease**

**PO (Adults and Children ≥60 kg):** 400 mg twice daily with meals for 28 days, followed by 14 days off, total of 3 cycles.

**PO (Adults and Children <60 kg):** 15 mg/kg/day given in 2 divided doses with meals (maximum daily dose = 800 mg) for 28 days, followed by 14 days off, for a total of 3 cycles.

**Neurocysticercosis**

**PO (Adults and Children ≥60 kg):** 400 mg twice daily with meals for 8–30 days.

**PO (Adults and Children <60 kg):** 15 mg/kg/day given in 2 divided doses with meals (maximum daily dose = 800 mg) for 8–30 days.

**Precautions**

**Surgery:** Cysticercus should be administered for 1–2 days prior to starting albendazole to minimize inflammatory reactions. Concurrent corticosteroid and anticonvulsant therapy should be administered during the first week of albendazole therapy to prevent cerebral hypertension and potential seizures.

**NURSING IMPLICATIONS**

**Assessment**

**Neurocysticercosis:** Cysticercus should be administered for 1–2 days prior to starting albendazole to minimize inflammatory reactions. Concurrent corticosteroid and anticonvulsant therapy should be administered during the first week of albendazole therapy to prevent cerebral hypertension and potential seizures.
Ophthalmic examinations should be performed before therapy to determine presence of retinal lesions.

Lab Test Considerations: Monitor liver function tests before start of each treatment and at least every 2 weeks during treatment. If enzymes are significantly elevated, discontinue albendazole; may be reinstated when levels have returned to pretreatment levels.

Monitor WBC count before each 28-day cycle and every 2 weeks during each 28-day cycle. Decrease in WBC count is usually reversible upon discontinuation of therapy. Therapy may be continued if decrease is moderate and does not progress.

Potential Nursing Diagnoses
Risk for infection (Indications)
Deficient knowledge (Patient/Family Teaching)

Implementation
Therapy can be started following a negative pregnancy test in women of childbearing age. Administer with a fatty food (preferably high in fat content).

Patient/Family Teaching
Instruct patient to take medication with a fatty food exactly as directed.

Emphasize the importance of regular blood tests to check WBCs and hepatic function.

Caution patients to notify health care professional if signs of hepatotoxicity (e.g., jaundice, dark urine, light-colored bowel movements, nausea, unusual abdominal pain) occur.

OB: Advise patients to use contraception during and for at least 1 mo after discontinuation of therapy. May cause fetal harm.

Evaluation/Desired Outcomes
Resolution of cysts in neurocysticercosis or hydatid disease.

Why was this drug prescribed for your patient?