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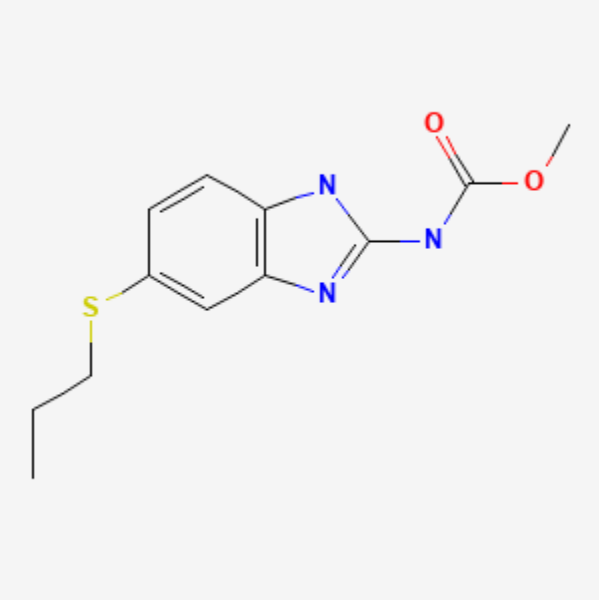
Albendazole

Revised: October 18, 2021.

CASRN: 54965-21-8



Drug Levels and Effects

Summary of Use during Lactation

Albendazole and its active metabolite are minimally excreted into breastmilk. An informal consultation group to the World Health Organization concluded that a single oral dose of albendazole can be given to lactating women.[1]

Drug Levels

Albendazole is poorly absorbed orally and is extensively metabolized to the active metabolite albendazole sulfoxide via extensive first-pass metabolism by CYP3A4. It is further metabolized to the inactive metabolite, albendazole sulfone.

Maternal Levels. Thirty-three women who were breastfeeding infants between 2 weeks and 6 months of age were given a single dose of albendazole 400 mg orally. Milk samples were obtained before the dose and 6, 12, 24 and 36 h after drug administration. Maternal blood samples were obtained 6 hours after drug administration. Albendazole, albendazole sulfoxide, and albendazole sulfone were measured in maternal blood and milk samples. Pharmacokinetic parameters for albendazole sulfoxide were calculated using data from 20 of the women who provided 3 or more milk samples. The mean peak milk concentration was 352 mcg/L which occurred at a mean of 6.9 hours. It had a half-life in breastmilk of 12.4 hours. Albendazole sulfoxide concentration 36 hours after the dose averaged 57 mcg/L; both albendazole and albendazole sulfone were undetectable (<661 mcg/L) in milk at this time. The authors estimated that a fully breastfed infant would be exposed to less than 0.1 mg/kg of albendazole sulfoxide over a 36-hour period following a maternal dose of 400 mg and even less of albendazole.[2] This translates into an infant dosage of less than 1.5% of the weight-adjusted maternal dosage.

Infant Levels. Relevant published information was not found as of the revision date.

Effects in Breastfed Infants

Two mothers with intestinal parasites were given a single 400 mg oral dose of albendazole while exclusively breastfeeding their infants who were between 1 and 6 months of age. No mention was made of adverse reactions in the breastfed infants.[3]

Effects on Lactation and Breastmilk

A study compared mothers in Peru who were given either a single dose of albendazole 400 mg (n = 117) or matching placebo (n = 99). Infant breastmilk intake was measured at 1 and 6 months postpartum. At 1 month postpartum, 92.5% of subjects were exclusively or predominantly breastfeeding. Daily infant milk intake was 756 mL in the albendazole group and 774 mL in the placebo group, which was not statistically different. A 6 months, only 10% of each group was exclusively or predominantly breastfeeding. Their infants' milk intakes were not statistically different.[4]

Alternate Drugs to Consider

Mebendazole

References

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2. Abdel-tawab AM, Bradley M, Ghazaly EA, et al. Albendazole and its metabolites in the breast milk of lactating women following a single oral dose of albendazole. Br J Clin Pharmacol. 2009;68:737–42. PubMed PMID: 19916998.
3. Dhonukshe-Rutten RA, Vossenaar M, West CE, et al. Day-to-day variations in iron, zinc and copper in breast milk of Guatemalan mothers. J Pediatr Gastroenterol Nutr. 2005;40:128–34. PubMed PMID: 15699684.
4. Mofid LS, Casapía M, Montresor A, et al. Maternal postpartum deworming and infant milk intake: Secondary outcomes from a trial. Matern Child Nutr. 2021;17:e13183. PubMed PMID: 33729674.

Substance Identification

Substance Name

Albendazole

CAS Registry Number

54965-21-8

Drug Class

Breast Feeding

Lactation

Anti-Infective Agents

Anticestodal Agents

Antiparasitic Agents

Antiprotozoal Agents