

U.S. National Library of Medicine National Center for Biotechnology Information **NLM Citation:** Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006-. Amisulpride. [Updated 2023 Nov 15]. **Bookshelf URL:** https://www.ncbi.nlm.nih.gov/books/



# Amisulpride

Revised: November 15, 2023.

CASRN: 53583-79-2



## **Drug Levels and Effects**

## Summary of Use during Lactation

Excretion of amisulpride into breastmilk is higher than with other pharmacologically similar drugs. Most information on amisulpride is with continuous oral use as a psychotherapeutic agent. For these uses, an alternate drug may be preferred, especially while nursing a newborn or preterm infant.[1-3] After a single dose for post-operative nausea and vomiting, the manufacturer suggests waiting 48 hours before resuming breastfeeding; however, with a half-life of 4 to 5 hours, a waiting period of 12 to 24 hours should be adequate to avoid large amounts being excreted into breastmilk.

**Disclaimer:** Information presented in this database is not meant as a substitute for professional judgment. You should consult your healthcare provider for breastfeeding advice related to your particular situation. The U.S. government does not warrant or assume any liability or responsibility for the accuracy or completeness of the information on this Site.

Attribution Statement: LactMed is a registered trademark of the U.S. Department of Health and Human Services.

## **Drug Levels**

*Maternal Levels.* A nursing mother was taking oral amisulpride 100 mg twice daily at 8:00 am and 12:30 pm, and desvenlafaxine 250 mg daily. Eight breastmilk samples were obtained over a 24-hour period with a breast pump. The average breastmilk concentration was 1.2 mg/L which equated to an infant dose of 183 mcg/kg daily or 6.1% of the maternal weight-adjusted dosage.[4]

A woman who was 13 months postpartum had been taking amisulpride 400 mg (5 mg/kg) once daily for 9 days. Eight milk samples were obtained over a 24-hour period and consisted of about 50% foremilk and 50% hindmilk. The average breastmilk concentration was 1.6 mg/L which would provide a fully breastfed infant a dose of 534 mcg/kg daily or 10.7% of the maternal weight-adjusted dosage.[5]

A woman began taking amisulpride 100 mg every 12 hours beginning at 34 weeks postpartum and continuing postpartum for psychosis and anxiety. At 4 days postpartum, milk samples were collected before the morning dose and at 4 more times during the 12 hours after the dose. The average concentration of amisulpride in breastmilk was 894 mcg/L. The exclusively breastfed infant would ingest a dose of 0.134 mg/kg daily, corresponding to 4.7% of the maternal weight-adjusted dosage. Because the milk to plasma ratio at the peak time was about 12 times the simultaneous maternal serum concentration and much higher than the predicted ratio of 2.5, the authors suggested that amisulpride is actively secreted into breastmilk.[6]

*Infant Levels.* A nursing mother had been taking oral amisulpride 100 mg twice daily at 8:00 am and 12:30 pm, and desvenlafaxine 250 mg daily for 12.6 weeks. Her partially breastfed infant was 5 months old. The infant's serum amisulpride concentration 3.1 hours after the mother's daily dose was 4 mcg/L or 3.9% of the maternal serum concentration.[4]

A woman began taking amisulpride 100 mg every 12 hours beginning at 34 weeks postpartum and continuing postpartum for psychosis and anxiety. Her infant was exclusively breastfed. At 4 days postpartum, a blood sample was obtained from the infant at 3.25 hours after the mother's morning dose. The time of the last breastfeeding was not stated. The infant had a serum amisulpride concentration of 10 mcg/L, which was 10.5% of the maternal serum concentration obtained 5 minutes earlier.[6] Some residual effect of transplacental passage cannot be ruled out at 4 days postpartum with the available data.

## **Effects in Breastfed Infants**

A 13-month-old infant was partially breastfed by a mother who was taking amisulpride 400 mg, fluvoxamine 200 mg, and azathioprine 150 mg daily, and was using nicotine chewing gum for smoking cessation. The mother had been taking amisulpride for 9 days; the duration of the other medications was not stated. A pediatric examination found the infant to be developing well.[5]

A woman with long-standing schizophrenia was treated with amisulpride 400 mg and haloperidol 5 mg daily throughout most of her pregnancy and during breastfeeding (extent not stated). Follow-up of the breastfed infant for 13 months by a pediatrician found no adverse effects and normal development of the infant.[7]

## **Effects on Lactation and Breastmilk**

Amisulpride increases serum prolactin and may cause galactorrhea at a higher rate than other psychotropic drugs.[8-16] The prolactin level in a mother with established lactation may not affect her ability to breastfeed.

#### **Alternate Drugs to Consider**

(Antipsychotics) Haloperidol, Olanzapine, Quetiapine, Risperidone

## References

- 1. Uguz F. Second-generation antipsychotics during the lactation period: A comparative systematic review on infant safety. J Clin Psychopharmacol 2016;36:244-52. PubMed PMID: 27028982.
- 2. Pacchiarotti I, Leon-Caballero J, Murru A, et al. Mood stabilizers and antipsychotics during breastfeeding: Focus on bipolar disorder. Eur Neuropsychopharmacol 2016;26:1562-78. PubMed PMID: 27568278.
- 3. Uguz F. A new safety scoring system for the use of psychotropic drugs during lactation. Am J Ther 2021;28:e118-e126. PubMed PMID: 30601177.
- 4. Ilett KF, Watt F, Hackett LP, et al. Assessment of infant dose through milk in a lactating woman taking amisulpride and desvenlafaxine for treatment-resistant depression. Ther Drug Monit 2010;32:704-7. PubMed PMID: 20926994.
- 5. Teoh S, Ilett KF, Hackett LP, et al. Estimation of rac-amisulpride transfer into milk and of infant dose via milk during its use in a lactating woman with bipolar disorder and schizophrenia. Breastfeed Med 2011;6:85-8. PubMed PMID: 20925494.
- 6. O'Halloran SJ, Wong A, Joyce DA. A liquid chromatography-tandem mass spectrometry method for quantifying amisulpride in human plasma and breast milk, applied to measuring drug transfer to a fully breast-fed neonate. Ther Drug Monit 2016;38:493-8. PubMed PMID: 27027463.
- 7. Uguz F. Breastfed infants exposed to combined antipsychotics: Two case reports. Am J Ther 2016;23:e1962e1964. PubMed PMID: 26539905.
- 8. Kopecek M, Bares M, Svarc J, et al. Hyperprolactinemia after low dose of amisulpride. Neuro Endocrinol Lett 2004;25:419-22. PubMed PMID: 15665803.
- 9. Paparrigopoulos T, Liappas J, Tzavellas E, et al. Amisulpride-induced hyperprolactinemia is reversible following discontinuation. Prog Neuropsychopharmacol Biol Psychiatry 2007;31:92-6. PubMed PMID: 16938372.
- 10. Bushe C, Shaw M. Prevalence of hyperprolactinaemia in a naturalistic cohort of schizophrenia and bipolar outpatients during treatment with typical and atypical antipsychotics. J Psychopharmacol 2007;21:768-73. PubMed PMID: 17606473.
- 11. Mendhekar D, Lohia D. Amisulpride and galactorrhoea: Delayed or withdrawal? World J Biol Psychiatry 2009;10 (4 Pt 3):1041-2. PubMed PMID: 19006011.
- 12. Ružić K, Grahovac T, Graovac M, et al. Hyperprolactinaemia with amisulpride. Psychiatr Danub 2011;23:92-4. PubMed PMID: 21448106.
- 13. Kropp S, Ziegenbein M, Grohmann R, et al. Galactorrhea due to psychotropic drugs. Pharmacopsychiatry 2004;37 (Suppl 1):S84-8. PubMed PMID: 15052519.
- 14. Glocker C, Grohmann R, Engel R, et al. Galactorrhea during antipsychotic treatment: Results from AMSP, a drug surveillance program, between 1993 and 2015. Eur Arch Psychiatry Clin Neurosci 2021;271:1425-35. PubMed PMID: 33768297.
- 15. Lee BH, Kim YK, Park SH. Using aripiprazole to resolve antipsychotic-induced symptomatic hyperprolactinemia: A pilot study. Prog Neuropsychopharmacol Biol Psychiatry 2006;30:714-7. PubMed PMID: 16571367.
- Düring SW, Nielsen MØ, Bak N, et al. Sexual dysfunction and hyperprolactinemia in schizophrenia before and after six weeks of D(2/3) receptor blockade - An exploratory study. Psychiatry Res 2019;274:58-65. PubMed PMID: 30780063.

## **Substance Identification**

## Substance Name

Amisulpride

## **CAS Registry Number**

53583-79-2

#### **Drug Class**

Breast Feeding

Lactation

Milk, Human

Antipsychotic Agents

Dopamine Antagonists