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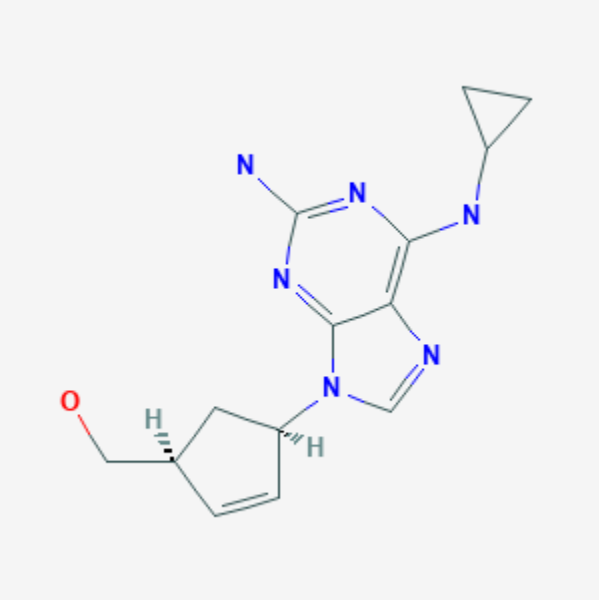
Abacavir

Revised: July 15, 2025.

CASRN: 188062-50-2



Drug Levels and Effects

Summary of Use during Lactation

Abacavir appears in breastmilk in small quantities. Very little information is available on the safety of its use during breastfeeding. Achieving and maintaining viral suppression with antiretroviral therapy decreases breastfeeding transmission risk to less than 1%, but not zero. Individuals with HIV who are on antiretroviral therapy with a sustained undetectable viral load and who choose to breastfeed should be supported in this decision. If a viral load is not suppressed, banked pasteurized donor milk or formula is recommended.[1,2]

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.

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Drug Levels

Maternal Levels. Fifteen women had been taking abacavir 300 mg twice daily for 53 to 182 days as part of a 3-drug combination that included zidovudine and lamivudine. Breastmilk samples were collected at just before a dose at a median of 1 month postpartum. Whole breastmilk levels contained a median of 0.057 mg/L of abacavir, which was a median of 85% of maternal blood levels.[3]

Five mothers taking abacavir 600 mg once daily provided 11 milk samples at a median of 12.8 hours after a dose. The median drug concentration in milk was 91 mcg/L, which resulted in an estimated infant dosage of 10 mcg/kg daily and a relative infant dose of 0.34% of the maternal weight-adjusted dosage.[4]

Infant Levels. Nine infants were breastfed either partially or exclusively by their mothers who had been taking abacavir 300 mg twice daily for 53 to 182 days as part of a 3-drug combination that included zidovudine and lamivudine. Infant blood was collected at a median of 1 month postpartum 11 to 17 hours after the mothers previous dose, and at a median of 1 hour (range 6 minutes to 35 hours) after the last breastfeeding. Eight of 9 infants studied had undetectable (<16 mcg/L) plasma abacavir levels.[3]

Infants were breastfed by mothers taking abacavir 600 mg once daily, although the extent of breastfeeding was not sated. Infant serum concentrations taken between 11 and 18 hours after maternal drug intake at 1 month of age ranged from 1 to 49 mcg/L.[4]

Effects in Breastfed Infants

An HIV-positive mother took a combination tablet containing dolutegravir 50 mg, abacavir sulfate 600 mg and lamivudine 300 mg (Triumeq) once daily. Her infant was exclusively breastfed for about 30 weeks and partially breastfed for about 20 weeks more. No obvious side effects were noted.[5]

Effects on Lactation and Breastmilk

Gynecomastia has been reported among men receiving highly active antiretroviral therapy. Gynecomastia is unilateral initially, but progresses to bilateral in about half of cases. No alterations in serum prolactin were noted and spontaneous resolution usually occurred within one year, even with continuation of the regimen.[6-8] Some case reports and in vitro studies have suggested that protease inhibitors might cause hyperprolactinemia and galactorrhea in some male patients,[9,10] although this has been disputed.[11] The relevance of these findings to nursing mothers is not known. The prolactin level in a mother with established lactation may not affect her ability to breastfeed.

References

1. World Health Organization. Consolidated guidelines on HIV prevention, testing, treatment, service delivery and monitoring: Recommendations for a public health approach. 2021. Available at: https://www.who.int/publications/i/item/9789240031593
2. Department of Health and Human Services. Recommendations for the use of antiretroviral drugs during pregnancy and interventions to reduce perinatal HIV transmission in the United States. 2024. Available at: https://clinicalinfo.hiv.gov/sites/default/files/guidelines/documents/perinatal-hiv/guidelines-perinatal.pdf
3. Shapiro RL, Rossi S, Ogwu A, et al. Therapeutic levels of lopinavir in late pregnancy and abacavir passage into breast milk, in the Mma Bana Study, Botswana. Antivir Ther 2013;18:585-90. PubMed PMID: 23183881.
4. Aebi-Popp K, Kahlert CR, Crisinel PA, et al. Transfer of antiretroviral drugs into breastmilk: A prospective study from the Swiss Mother and Child HIV Cohort Study. J Antimicrob Chemother 2022;77:3436-42. PubMed PMID: 36177836.

5. Kobbe R, Schalkwijk S, Dunay G, et al. Dolutegravir in breast milk and maternal and infant plasma during breastfeeding. AIDS 2016;30:2731-3. PubMed PMID: 27782968.
6. García-Benayas T, Blanco F, Martin-Carbonero L, et al. Gynecomastia in HIV-infected patients receiving antiretroviral therapy. AIDS Res Hum Retroviruses 2003;19:739-41. PubMed PMID: 14585204.
7. Pantanowitz L, Evans D, Gross PD, et al. HIV-related gynecomastia. Breast J 2003;9:131-2. PubMed PMID: 12603389.
8. Evans DL, Pantanowitz L, Dezube BJ, et al. Breast enlargement in 13 men who were seropositive for human immunodeficiency virus. Clin Infect Dis 2002;35:1113-9. PubMed PMID: 12384846.
9. Hutchinson J, Murphy M, Harries R, et al. Galactorrhoea and hyperprolactinaemia associated with protease-inhibitors. Lancet 2000;356:1003-4. PubMed PMID: 11041407.
10. Orlando G, Brunetti L, Vacca M. Ritonavir and saquinavir directly stimulate anterior pituitary prolactin secretion, in vitro. Int J Immunopathol Pharmacol 2002;15:65-8. PubMed PMID: 12593790.
11. Montero A, Bottasso OA, Luraghi MR, et al. Galactorrhoea, hyperprolactinaemia, and protease inhibitors. Lancet 2001;357:473-5. PubMed PMID: 11273087.

Substance Identification

Substance Name

Abacavir

CAS Registry Number

188062-50-2

Drug Class

Breast Feeding

Lactation

Milk, Human

Anti-Infective Agents

Antiviral Agents

Anti-HIV Agents

Anti-Retroviral Agents

Reverse Transcriptase Inhibitors