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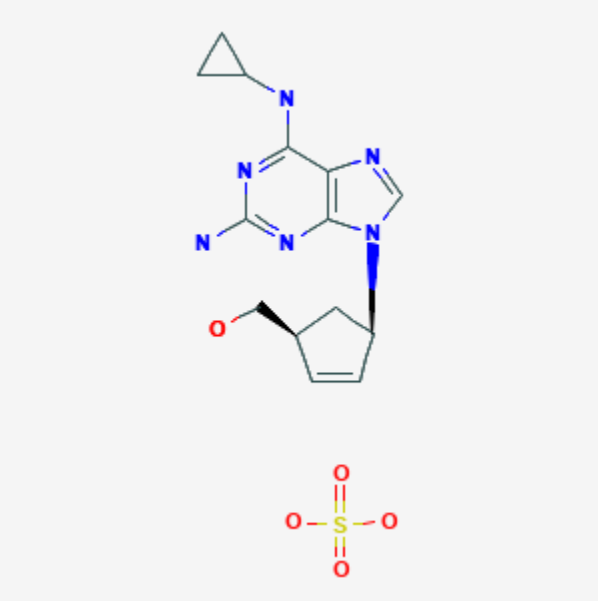
Abacavir

Revised: October 31, 2018.

CASRN: 188062-50-2



Drug Levels and Effects

Summary of Use during Lactation

In the United States and other developed countries, HIV-infected mothers should generally not breastfeed their infants. Published experience with abacavir during breastfeeding is limited. In countries in which no acceptable, feasible, sustainable and safe replacement feeding is available, World Health Organization guidelines recommend that all women with an HIV infection who are pregnant or breastfeeding should be maintained on antiretroviral therapy for at least the duration of risk for mother-to-child transmission. Mothers should exclusively breastfeed their infants for the first 6 months of life; breastfeeding with complementary feeding should continue through at least 12 months of life up to 24 months of life.[1] The first choice regimen for nursing mothers is tenofovir, efavirenz and either lamivudine or emtricitabine. If these drugs are unavailable, alternative regimens include: 1) zidovudine, lamivudine and efavirenz; 2) zidovudine, lamivudine and

nevirapine; or 3) tenofovir, nevirapine and either lamivudine or emtricitabine. Exclusively breastfed infants should also receive 6 weeks of prophylaxis with nevirapine.[2][3]

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.[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.[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][7][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

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Substance Identification

Substance Name

Abacavir

CAS Registry Number

188062-50-2

Drug Class

Breast Feeding

Lactation

Anti-Infective Agents

Anti-HIV Agents

Antiviral Agents

Anti-Retroviral Agents

Reverse Transcriptase Inhibitors