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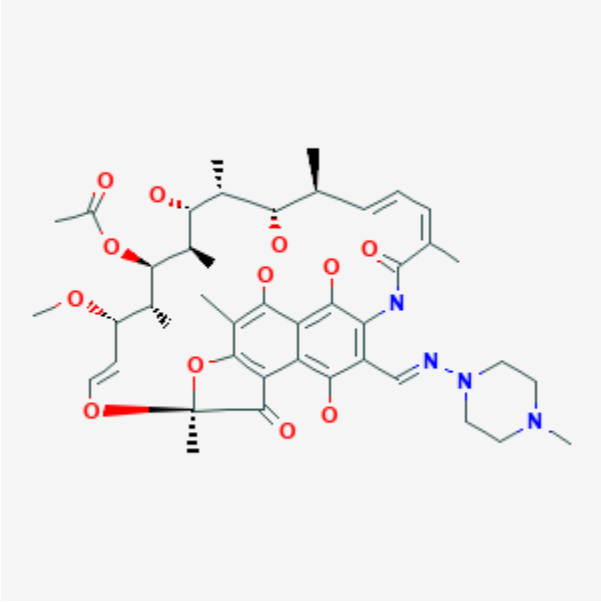
Rifampin

Revised: October 31, 2018.

CASRN: 13292-46-1



Drug Levels and Effects

Summary of Use during Lactation

Limited information indicates that there are low levels of rifampin in breastmilk that would not be expected to cause any adverse effects in breastfed infants. The amount of rifampin in milk is insufficient to treat tuberculosis in the breastfed infant. The Centers for Disease Control and Prevention and other professional organizations state that breastfeeding should not be discouraged in women taking rifampin.[1][2][3]

Drug Levels

Maternal Levels. One old study reported that after a single oral dose of rifampin of 150 mg, milk levels 4 hours after the dose ranged from 0 to 1.8 mg/L. After a single oral dose of 450 mg, milk levels 12 hours after the dose ranged from 3.4 to 4.9 mg/L.[4] Details of the study and patients were not stated.

A physiologically based pharmacokinetic model of rifampin predicted that a fully breastfed infant would receive a dose of 0.4 mg/kg daily with a maternal dosage of 10.9 mg/kg daily, which is 3.7% of the weight-adjusted maternal dosage.[5]

Infant Levels. Measured infant serum levels have not been reported. A physiologically based pharmacokinetic model of rifampin predicted that a fully breastfed infant would achieve a maximum serum concentration of about 0.2 mg/L with a maternal dose of 10.9 mg/kg daily.[5]

Effects in Breastfed Infants

One woman taking rifampin 450 mg, isoniazid 300 mg and ethambutol 1200 mg daily during pregnancy and rifampin 450 mg and isoniazid 300 mg for the first 7 months of lactation (extent not stated). The infant was born with mildly elevated serum liver enzymes which persisted for to 1 (alanine transferase) to 2 years (aspartate transaminase), but had no other adverse reactions.[6]

Rifampin was used as part of multi-drug regimens to treat 2 pregnant women with multidrug-resistant tuberculosis throughout pregnancy and postpartum. Their two infants were breastfed (extent and duration not stated). At age 3.9 and 5.1 years, the children were developing normally except for hyperactivity in one.[7]

Two mothers in Turkey were diagnosed with tuberculosis at the 30th and 34th weeks of pregnancy. They immediately started isoniazid 300 mg, rifampin 600 mg, pyridoxine 50 mg daily for 6 months, plus pyrazinamide 25 mg/kg and ethambutol 25 mg/kg daily for 2 months. Both mothers breastfed their infants (extent not stated). Their infants were given isoniazid 5 mg/kg daily for 3 months prophylactically. Tuberculin skin tests were negative after 3 months and neither infant had tuberculosis at 1 year of age. No adverse effects of the drugs were mentioned.[8]

A woman with leprosy took clofazimine, dapsone and rifampin during pregnancy and breastfeeding. Her infant developed skin discoloration attributed to clofazimine which reversed 3 months after cessation of breastfeeding.[9]

Effects on Lactation and Breastmilk

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

Alternate Drugs to Consider

(Methicillin-resistant Staph. aureus) Doxycycline, Minocycline, Trimethoprim-Sulfamethoxazole, Vancomycin

References

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Substance Identification

Substance Name

Rifampin

CAS Registry Number

13292-46-1

Drug Class

Breast Feeding

Lactation

Antitubercular Agents

Leprostatic Agents

Rifamycins