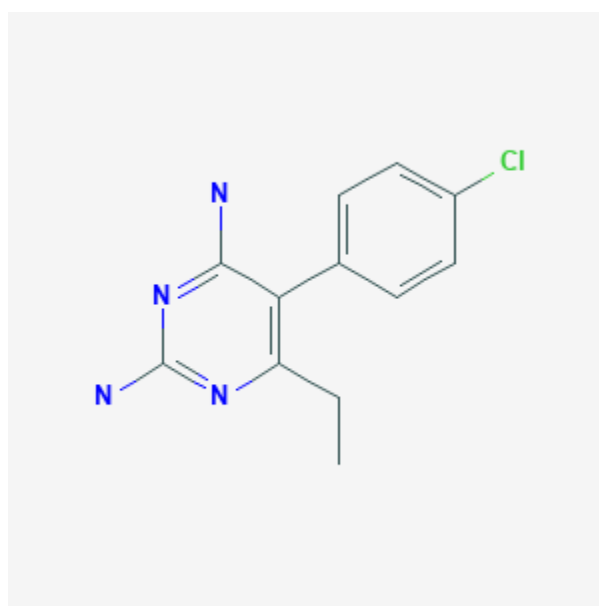




## Pyrimethamine

Revised: October 31, 2018.

CASRN: 58-14-0



## Drug Levels and Effects

### Summary of Use during Lactation

No adverse reactions in breastfed infants have been reported and it is acceptable in nursing mothers. In HIV-infected women, elevated viral HIV loads in milk were decreased after treatment with chloroquine to a greater extent than other women who were treated with the combination of sulfadoxine and pyrimethamine.[1] It has been suggested that maternal pyrimethamine clearance might be increased during lactation, but data are insufficient to make a definitive conclusion.[2][3]

### Drug Levels

*Maternal Levels.* Pyrimethamine milk levels have been reported after doses of 25, 50 or 75 mg in 16 women. Milk levels ranged from 2.7 to 3.3 mg/L at 6 hours after the dose, 1.6 to 2 mg/L at 24 hours after the dose, and 0.66 to

1 mg/L at 48 hours after the dose (3 women only). Reported milk levels were not proportional to the dose in this old study using an antiquated assay method.[4][5]

Three women were given a single dose of pyrimethamine 12.5 mg orally 2 to 5 days postpartum. Milk samples were obtained periodically for about 9 days after the dose. Assuming a daily intake of 1 L of milk, the infants would receive 0.14, 0.21 and 0.34 mg in milk over the study period. The authors calculated that these values equated to an average of 30% (range 16.8 to 45.6%) of the maternal weight-adjusted dosage.[6]

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

## Effects in Breastfed Infants

Administration of pyrimethamine to mothers of 26 predominantly breastfed infants 2 to 6 months old who were infected with malaria was curative in the infants.[5] The regimen consisted of 75 mg followed by a subsequent dose of 50-75 mg 4 to 7 days later. The efficacy apparently is related to breastfeeding habits, because infants in another tribal group who breastfed their infants less extensively were not protected.[4]

A case report indicates that a maternal dose of 75 mg orally followed by 25 mg weekly cured malaria in her breastfed infant and protected her infant against becoming infected with malaria for 6 months. After the mother missed taking her dose for 2 weeks, the infant developed symptoms of malaria.[7] No adverse effects were reported in any of the infants.

## Effects on Lactation and Breastmilk

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

## References

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4. Clyde DE. An examination of factors involved in the transfer of pyrimethamine in human milk. *East Afr Med J.* 1957;34:81-5. PubMed PMID: 13437933.
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## Substance Identification

### Substance Name

Pyrimethamine

### CAS Registry Number

58-14-0

## **Drug Class**

Breast Feeding

Lactation

Anti-infective Agents

Antiparasitic Agents

Antimalarials

Antiprotozoal Agents