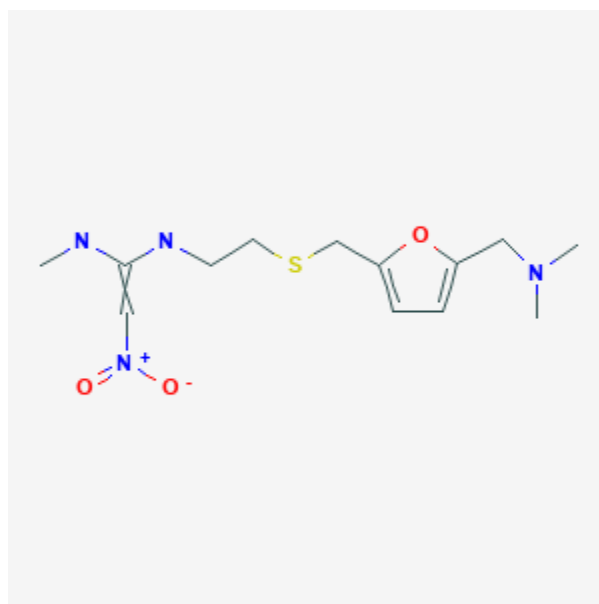




## Ranitidine

Revised: October 31, 2018.

CASRN: 66357-35-5



## Drug Levels and Effects

### Summary of Use during Lactation

Although interpatient variability exists, the dose of ranitidine in breastmilk is less than the dose used in newborn infants. Maternal ranitidine would not be expected to cause any adverse effects in breastfed infants. No special precautions are required.

### Drug Levels

*Maternal Levels.* Six women with established lactation who were 6 to 10 days postpartum were given a single dose of 150 mg of ranitidine orally. Average milk levels were 1.28, 1.42 and 1.02 mg/L at 2, 4 and 8 hours, respectively, after the dose; however, there was great interpatient variability in both peak levels and the time of the peak.[1]

After 5 oral doses of ranitidine 150 mg every 12 hours in a 54-day postpartum woman, the highest measured milk level occurred 5.5 hours after the 5th dose and was 2.6 mg/L. The estimated half-life in milk was 2.9 hours. [2]

Using the average peak milk level data from these 2 papers, an exclusively breastfed infant would receive an estimated maximum of 300 mcg/kg daily with a maternal dosage of 150 mg daily. This dosage is 20% of the dosage used intravenously in newborn infants for stress ulcer prophylaxis.

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

## Effects in Breastfed Infants

One 54-day-old breastfed infant had no observable adverse effects after maternal ingestion of ranitidine 150 mg every 12 hours for 2 days. [2]

## Effects on Lactation and Breastmilk

Histamine H<sub>2</sub>-receptor blockade is known to stimulate prolactin secretion. [3] Ranitidine in intravenous doses over 100 mg or during long-term oral use have increased serum prolactin in some studies, and rare cases of gynecomastia have been reported. [4][5][6][7][8] The prolactin level in a mother with established lactation may not affect her ability to breastfeed.

## Alternate Drugs to Consider

Cimetidine, Famotidine, Nizatidine, Omeprazole, Pantoprazole, Sucralfate

## References

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## Substance Identification

### Substance Name

Ranitidine

## **CAS Registry Number**

66357-35-5

## **Drug Class**

Breast Feeding

Lactation

Anti-Ulcer Agents

Histamine H2 Antagonists

Gastrointestinal Agents