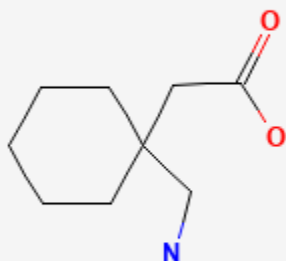




Gabapentin

Revised: November 30, 2022.

CASRN: 60142-96-3



Drug Levels and Effects

Summary of Use during Lactation

Limited information indicates that maternal doses of gabapentin up to 2.1 grams daily produce relatively low levels in infant serum. Monitor the infant for drowsiness, adequate weight gain, and developmental milestones, especially in younger, exclusively breastfed infants and when using combinations of anticonvulsant or psychotropic drugs. A single oral dose of either 300 mg or 600 mg given to the mother before cesarean section appeared to have no effect on breastfeeding initiation.[1] An expert consensus guideline indicates that gabapentin is an acceptable choice for refractory restless leg syndrome during lactation.[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

In published reports of anticonvulsant use during breastfeeding, most women were taking a combination of anticonvulsants. Some other anticonvulsants (e.g., phenytoin, carbamazepine) stimulate the metabolism of other drugs including anticonvulsants, whereas others (e.g., valproic acid) inhibit the metabolism of other drugs. Therefore, the relationship of the maternal dosage to the concentration in breastmilk can be quite variable, making calculation of the weight-adjusted percentage of maternal dosage less meaningful than for other drugs in this database.

Maternal Levels. Four women who were taking gabapentin and were 12 to 21 days postpartum and a fifth who was 97 days postpartum had a single breastmilk sample measured just before nursing 10 to 15 hours after the previous evening's dose. Their average dosage of 1.5 grams daily (range 0.6 to 2.1 grams daily) and their average milk level was 4.5 mg/L (range 1.2 to 8.7 mg/L). The authors estimated that a fully breastfed infant would receive a dosage of 0.2 to 1.3 mg/kg daily at the minimum which is equivalent to 1.3 to 3.8% of the maternal weight-adjusted dosage.[3] A follow-up publication by the same authors found a similar degree of gabapentin excretion into breastmilk in 8 breastmilk samples from 3 additional mothers.[4]

A woman took gabapentin 600 mg 3 times daily (36.7 mg/kg daily) plus amitriptyline 2.5 mg daily for 6 weeks beginning in the first few days postpartum for chronic back pain. Eight milk samples (6 foremilk and 2 hindmilk) were obtained over 24 hours. Milk levels varied between about 5 and 7 mg/L. Using the average milk level, a fully breastfed infant would receive a dosage of 0.86 mg/kg daily or 2.34% of the maternal weight-adjusted dosage.[5]

Infant Levels. Three infants who were 2 to 3 weeks of age and one who was 14 weeks of age were breastfed during maternal use of gabapentin in an average daily dosages of 1575 mg (range 600 mg to 2.1 grams daily). Serum levels were measured after the morning nursing before the mothers' morning dose of gabapentin (10 to 15 hours after the prior evening's dose). One infant had an undetectable (<0.12 mg/L) serum level. The other 3 had an average serum level of 0.27 mg/L, which was below the level of accurate quantification for the assay method. The latter 3 infants' serum levels averaged 7.7% (range 4 to 12%) of their mothers' serum levels.[3] A follow-up publication by the same authors found that gabapentin was undetectable (<0.7 mg/L) in the plasma of 3 additional breastfed infants.[4]

An infant whose mother was taking gabapentin 36.7 mg/kg daily breastfed her infant 6 to 7 times daily with some additional artificial feeding at night. At 1.6 months of age, the infant's plasma gabapentin concentration was 0.4 mg/L which was about 6% of the average maternal plasma concentration.[5]

Effects in Breastfed Infants

Three infants who were 2 to 3 weeks of age and one who was 14 weeks of age were breastfed during maternal use of gabapentin in an average daily dosages of 1575 mg (range 600 mg to 2.1 grams daily). One infant's mother was also taking topiramate and lorazepam and another infant's mother was taking clonazepam. No adverse effects were noted in any of the infants.[3] A follow-up publication by the same authors found no adverse reactions among 3 additional breastfed infants whose mothers were taking gabapentin during pregnancy and lactation.[4]

An exclusively breastfed 5-day-old infant whose mother was taking gabapentin 1.2 grams and levetiracetam 2.5 grams daily during pregnancy and lactation appeared healthy to the investigators throughout the 6- to 8-week study period.[6]

An infant whose mother was taking gabapentin 36.7 mg/kg daily breastfed her infant 6 to 7 times daily for most of the first 1.6 months of life with some additional artificial feeding at night. The mother was also taking amitriptyline 2.5 mg daily. At 1.6 months of age, the infant was found to be healthy with a weight between the

10th and 25th percentiles, having been at the 50th percentile at birth. His age on the Denver developmental test was the same as his chronological age.[5]

Effects on Lactation and Breastmilk

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

Alternate Drugs to Consider

(Neuropathic Pain) Carbamazepine; (Seizure Disorder) Carbamazepine, Divalproex, Lamotrigine, Oxcarbazepine, Phenytoin, Valproic Acid

References

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Substance Identification

Substance Name

Gabapentin

CAS Registry Number

60142-96-3

Drug Class

Breast Feeding

Lactation

Milk, Human

Anticonvulsants

Antimanic Agents

GABA Agents