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# Apixaban

Revised: July 15, 2023.

CASRN: 503612-47-3



# **Drug Levels and Effects**

## Summary of Use during Lactation

Information from four mothers indicates that apixaban levels in milk are rather high. An alternate drug is preferred, especially while nursing a newborn or preterm infant.[1-3]

#### **Drug Levels**

*Maternal Levels*. A nursing mother who was 23 months postpartum received 2 doses of 5 mg of oral apixaban 12 hours apart. Blood and milk samples were obtained before the first dose and at 3.5, 7, 12 (before the second dose), 16, and 24 hours after the first dose. Peak apixaban milk levels of about 230 mcg/L occurred at 3.5 to 4

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hours after each dose. The average milk level over 24 hours was 113.6 mcg/L, which corresponds to a daily infant dosage of 17 mcg/kg daily and a relative infant dose of 12.8% of the maternal weight-adjusted dosage.[3]

Three lactating women were taking 5 mg of apixaban twice daily by mouth and were at steady-state. They extracted milk and provided samples at 0, 1, 2, 4, 6, 8, 10, and 12 hours after a dose. Peak milk levels of apixaban occurred at 1 hours after the dose in one woman and 2 hours after the dose in the others two. Peak levels ranged from 0.2 to 0.25 mg/L and average milk levels ranged from 0.134 to 0.16 mg/L. The absolute infant dosage was calculated to be 10 mcg/kg every 12 hours, which amounted to weight adjusted infant dosages of 14%, 20% and 21% in the three infants.[2]

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

#### **Effects in Breastfed Infants**

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

#### **Effects on Lactation and Breastmilk**

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

#### **Alternate Drugs to Consider**

Acenocoumarol, Dabigatran, Dalteparin, Enoxaparin, Heparin, Rivaroxaban, Warfarin

#### References

- 1. Daei M, Khalili H, Heidari Z. Direct oral anticoagulant safety during breastfeeding: A narrative review. Eur J Clin Pharmacol. 2021;77:1465–71. PubMed PMID: 33963877.
- 2. Datta P, Bramnik A, Rewers-Felkins K, et al. Transfer of apixaban into human milk. Obstet Gynecol. 2021;137:1080–2. PubMed PMID: 33957661.
- 3. Zhao Y, Arya R, Couchman L, et al. Are apixaban and rivaroxaban distributed into human breast milk to clinically relevant concentrations? Blood. 2020;136:1783–5. PubMed PMID: 32488251.

# **Substance Identification**

#### **Substance Name**

Apixaban

#### **CAS Registry Number**

503612-47-3

## **Drug Class**

Breast Feeding

Lactation

Milk, Human

Anticoagulants

Antithrombins