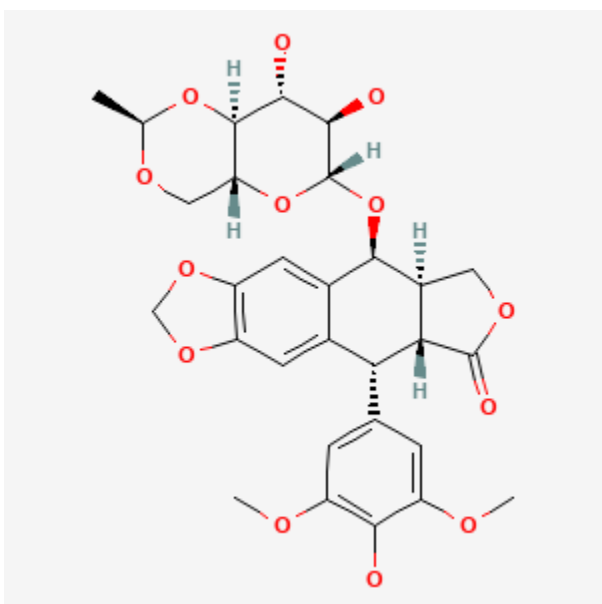




Etoposide

Revised: January 18, 2021.

CASRN: 33419-42-0



Drug Levels and Effects

Summary of Use during Lactation

Most sources consider breastfeeding to be contraindicated during maternal antineoplastic drug therapy. It might be possible to breastfeed safely during intermittent therapy with etoposide after an appropriate period of breastfeeding abstinence. A period of at least 24 hours is required after a dose of 80 mg/sq. m. or less. Others have suggested an abstinence period of 72 hours after etoposide use.[1] Chemotherapy may adversely affect the normal microbiome and chemical makeup of breastmilk.[2] Women who receive chemotherapy during pregnancy are more likely to have difficulty nursing their infant.

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

Maternal Levels. A woman treated with etoposide, mitoxantrone and cytarabine for promyelocytic leukemia received 5 daily etoposide doses of 80 mg/sq. m. intravenously. Etoposide milk levels reached peaks of about 600, 580 and 800 mcg/L immediately after the last 3 doses, respectively. Etoposide was undetectable (assay limit not specified) in milk 24 hours after each dose.[3]

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

Effects in Breastfed Infants

One mother received with 5 daily doses of etoposide 80 mg/sq. m. and cytarabine 170 mg/sq. m. intravenously as well as 3 daily doses of 6 mg/sq. m. of mitoxantrone intravenously. She resumed breastfeeding her infant 3 weeks after the third dose of mitoxantrone at a time when mitoxantrone was still detectable in milk. The infant had no apparent abnormalities at 16 months of age.[3]

Effects on Lactation and Breastmilk

A telephone follow-up study was conducted on 74 women who received cancer chemotherapy at one center during the second or third trimester of pregnancy to determine if they were successful at breastfeeding postpartum. Only 34% of the women were able to exclusively breastfeed their infants, and 66% of the women reported experiencing breastfeeding difficulties. This was in comparison to a 91% breastfeeding success rate in 22 other mothers diagnosed during pregnancy, but not treated with chemotherapy. Other statistically significant correlations included: 1. mothers with breastfeeding difficulties had an average of 5.5 cycles of chemotherapy compared with 3.8 cycles among mothers who had no difficulties; and 2. mothers with breastfeeding difficulties received their first cycle of chemotherapy on average 3.4 weeks earlier in pregnancy. Of the 9 women who received a taxane-containing regimen, 7 had breastfeeding difficulties.[4]

References

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2. Urbaniak C, McMillan A, Angelini M, et al. Effect of chemotherapy on the microbiota and metabolome of human milk, a case report. *Microbiome.* 2014;2:24. PubMed PMID: 25061513.
3. Azuno Y, Kaku K, Fujita N, et al. Mitoxantrone and etoposide in breast milk. *Am J Hematol.* 1995;48:131–2. Letter.. PubMed PMID: 7847330.
4. Stopenski S, Aslam A, Zhang X, et al. After chemotherapy treatment for maternal cancer during pregnancy, is breastfeeding possible? *Breastfeed Med.* 2017;12:91–7. PubMed PMID: 28170295.

Substance Identification

Substance Name

Etoposide

CAS Registry Number

33419-42-0

Drug Class

Breast Feeding

Lactation

Antineoplastic Agents