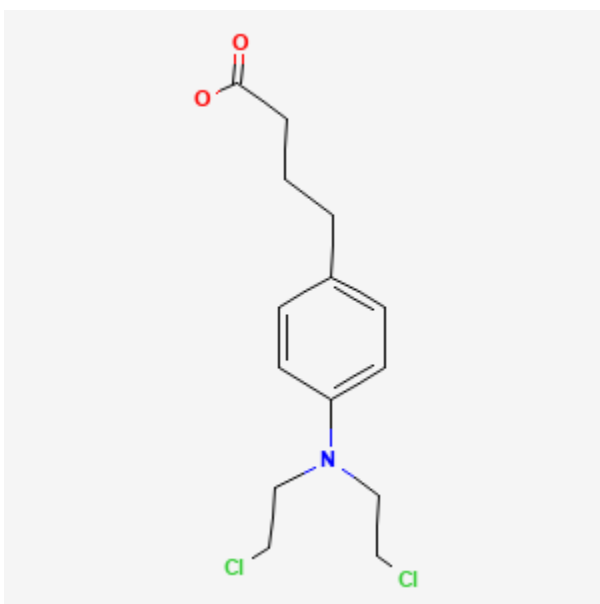




## Chlorambucil

Revised: August 15, 2023.

CASRN: 305-03-3



## Drug Levels and Effects

### Summary of Use during Lactation

No information is available on the clinical use of chlorambucil during breastfeeding. Most sources consider breastfeeding to be contraindicated during maternal cytotoxic antineoplastic drug therapy, especially alkylating agents such as chlorambucil.[1,2] Chemotherapy may adversely affect the normal microbiome and chemical makeup of breastmilk.[3] Women who receive chemotherapy during pregnancy are more likely to have difficulty nursing their infant.

### Drug Levels

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

**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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*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

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. None of the patients in the study received chlorambucil.[4]

## References

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2. Janssen NM, Genta MS. The effects of immunosuppressive and anti-inflammatory medications on fertility, pregnancy and lactation. *Arch Intern Med* 2000;160:610-9. PubMed PMID: 10724046.
3. 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.
4. Stopenski S, Aslam A, Zhang X, Cardonick E. After chemotherapy treatment for maternal cancer during pregnancy, is breastfeeding possible? *Breastfeed Med* 2017;12:91-7. PubMed PMID: 28170295.

## Substance Identification

### Substance Name

Chlorambucil

### CAS Registry Number

305-03-3

### Drug Class

Breast Feeding

Lactation

Milk, Human

Antineoplastic Agents, Alkylating