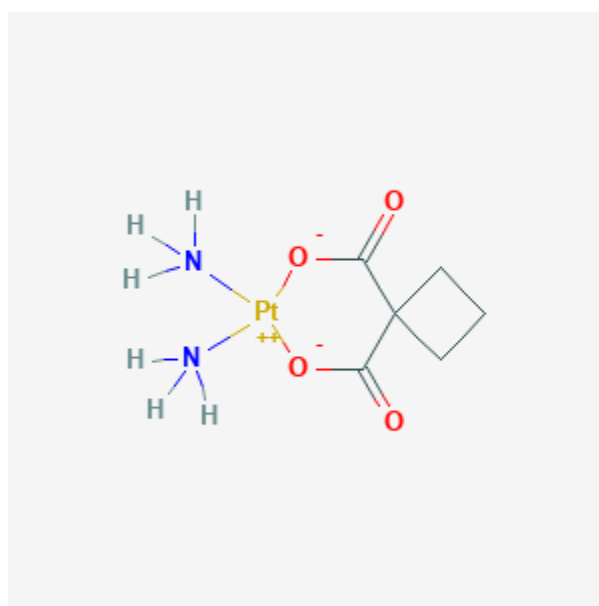




Carboplatin

Revised: December 3, 2018.

CASRN: 41575-94-4



Drug Levels and Effects

Summary of Use during Lactation

Most sources consider breastfeeding to be contraindicated during maternal antineoplastic drug therapy, especially alkylating agents such as carboplatin.[1] It might be possible to breastfeed safely during intermittent therapy with an appropriate period of breastfeeding abstinence, but the duration of abstinence is not clear. In one case, carboplatin was still detectable in milk 13 days after a dose of 2.9 mg/kg. 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.[3]

Drug Levels

Maternal Levels. A woman with a history of treatment for thyroid cancer and recurrence during pregnancy was treated postpartum with carboplatin and paclitaxel. Her intravenous carboplatin dose was 233 mg (2.9 mg/kg;

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AUC 1.5) weekly for 6 weeks. Whole milk samples were obtained at 4, 28, 172, and 316 hours after the dose. The highest milk carboplatin level was 0.9 mg/L in the 4-hour sample and carboplatin was still measurable (0.16 mg/L) in the 317 hour sample. Metabolites were not measured. The authors calculated an average milk carboplatin level over the 316 hour collection period of 0.4 mg/L, resulting in an estimated total infant weight-adjusted daily dose of 2% of the maternal weekly dose.[4] Note that the above estimate of an infant daily dose is expressed as percentage of the maternal weekly dose, and that the authors used a level of zero as the trough milk level, rather than a milk level taken before the sixth dose (which would equal approximately the 172-hour level of 0.25 mg/L), resulting in an underestimate of the AUC and infant dose.

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.

References

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2. Urbaniak C, McMillan A, Angelini M, Gloor GB et al. Effect of chemotherapy on the microbiota and metabolome of human milk, a case report. *Microbiome.* 2014;2:24. PubMed PMID: 25061513.
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4. Griffin SJ, Milla M, Baker TE, Liu T, Wang H, Hale TW. Transfer of carboplatin and paclitaxel into breast milk. *J Hum Lact.* 2012;28:457-9. PubMed PMID: 23087196.

Substance Identification

Substance Name

Carboplatin

CAS Registry Number

41575-94-4

Drug Class

Breast Feeding

Lactation

Antineoplastic Agents