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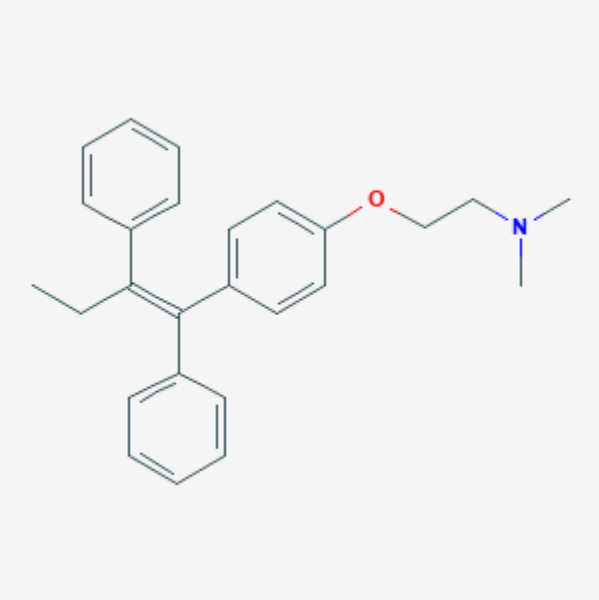
Tamoxifen

Revised: March 16, 2020.

CASRN: 10540-29-1



Drug Levels and Effects

Summary of Use during Lactation

Tamoxifen and its active metabolites are detectable in milk and accumulate in milk over time. It can also suppress lactation. Tamoifen should be avoided in nursing mothers.

Drug Levels

Maternal Levels. A nursing mother was diagnosed with breast cancer and started on tamoxifen 20 mg daily. Thirty-nine milk samples were collected over 23 days beforeand after tamoxifen initiation, although the timing of samples with respect to doses was not provided in the abstract. On day 1 of therapy, tamoxifen was detected in a concentration of 15.2 mcg/L. Milk concentrations increased steadily to a concentration of 79.5 mcg/L on day 23. Active metabolites 4-hydroxytamoxifen and endoxifen (4-hydroxy-N-desmethyltamoxifen) also increased over time and were quantifiable by day 18 of therapy.[1]

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

Tamoxifen was more effective than placebo in suppressing lactation and preventing engorgement and pain in two trials in postpartum mothers. Neither study stated what, if any, physical methods (e.g., breast binding) were used concurrently.[2,3] In one study of 80 women, tamoxifen 10 mg four times daily for 5 days was more effective than placebo in suppressing a rise in serum prolactin after use of a mechanical breast pump after 5 days of treatment, but not on day 3. All of the women in the study had breastfed a previous child.[2] The other study of 150 women used 2 regimens: tamoxifen 30 mg twice daily for 2 days followed by 10 mg twice daily for 2 days; and 10 mg twice daily for 14 days. More women in the tamoxifen groups had not previously breastfed an infant.[3]

In a case report, a woman with a history of breastfeeding 4 children (the last having been weaned 10 months earlier) began lactating after 1 week of a cancer chemotherapy regimen for breast cancer that included tamoxifen 20 mg/day. Milk production continued for several weeks until tamoxifen was discontinued after which it did not return during 12 more weeks of chemotherapy.[4]

References

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3. Shaaban MM. Suppression of lactation by an antiestrogen, tamoxifen. Eur J Obstet Gynecol Reprod Biol. 1975;4:167–9. PubMed PMID: 1053489.
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Substance Identification

Substance Name

Tamoxifen

CAS Registry Number

10540-29-1

Drug Class

Breast Feeding

Lactation

Antineoplastic Agents

Estrogen Antagonists