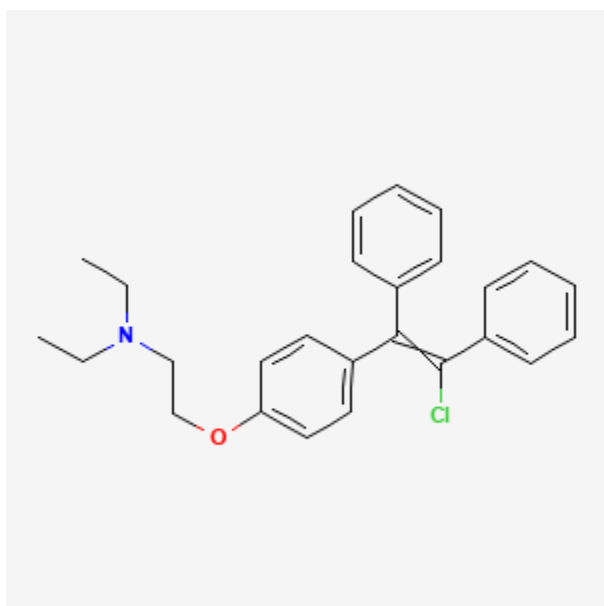




Clomiphene

Revised: September 20, 2021.

CASRN: 911-45-5



Drug Levels and Effects

Summary of Use during Lactation

Clomiphene appeared in low amounts in milk in one woman. Several studies found that clomiphene suppresses lactation in women who did not want to breastfeed. It appears to act by lowering serum prolactin, especially the post-stimulation surge in serum prolactin. It is likely that clomiphene would interfere with lactation in a nursing mother.

Drug Levels

Maternal Levels. A woman who was taking a clomiphene dose of 2.04 mg/kg daily collected 6 to 8 milk samples over a 24-hour period. The peak milk level was 583 mcg/L and the mean concentration was 300 mcg/L. Using

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the mean value, the absolute infant dose in a fully breastfed infant would be 45 mcg/kg daily and the relative infant dose would be 2.2% of the mother's weight-adjusted dosage.[1]

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

Effects in Breastfed Infants

A woman who was taking clomiphene in a dose of 2.04 mg/kg daily partially breastfed her infant. She did not observe any adverse effects in her infant.[1]

Effects on Lactation and Breastmilk

A double-blind study compared clomiphene in dosages of 50 mg daily for 10 days (n = 110), 100 mg daily for 5 days (n = 26) and placebo (n = 41) in their ability to suppress lactation and relieve pain and engorgement in nonnursing postpartum mothers. Both dosages of clomiphene were superior to placebo as reported by the women, but the 100 mg daily dosage was somewhat superior to the 50 mg daily dosage.[2]

A study compared clomiphene 100 mg daily for 5 days (n = 60) to placebo (n = 30) in suppressing lactation and symptoms of engorgement. Starting clomiphene within 12 hours of delivery was more effective in all measures than starting it 12 hours or more after delivery as judged by a physician observer; both treatments were more effective than mechanical measures alone such as breast binding.[3]

A randomized trial compared clomiphene 50 mg twice daily for 14 days (n = 15) to bromocriptine 2.5 mg twice daily for 14 days (n = 15), diethylstilbestrol 5 mg 3 times daily for 14 days (n = 15), testosterone propionate 75 mg intramuscularly once (n = 15), and placebo 3 times daily by mouth (n = 15) in their ability to reduce serum prolactin and lactation postpartum. After three days of treatment, serum prolactin was reduced to 65% of baseline by clomiphene compared to a drop to 35% in patients who received bromocriptine. Clomiphene was also less effective than bromocriptine in suppressing lactation and symptoms of engorgement.[4]

A study compared clomiphene 100 mg daily for 7 days (n = 10) to placebo (n = 12) started on the first day postpartum. Clomiphene was no more effective than placebo in suppressing lactation or reducing serum prolactin concentrations.[5]

Women in the first week postpartum who did not wish to breastfeed received either clomiphene 50 mg twice daily (n = 10) or placebo (n = 10). Women who received clomiphene did not experience a rise in serum prolactin from baseline values during use of a breast pump; those given placebo had the normal post-stimulation rise in serum prolactin.[6]

Eighty postpartum women were studied. Forty received clomiphene 50 mg twice daily for 5 days beginning the first day postpartum; 20 received clomiphene 50 mg twice daily for 5 days beginning the fourth day postpartum; and, 20 received placebo. All women receiving clomiphene experienced inhibition of lactation, and reductions in breast engorgement, discomfort and serum prolactin. Prolactin serum concentrations became statistically lower than baseline on day 3 for the women who were 1 day postpartum and on day 5 for those who were 4 days postpartum at the outset. Placebo did not suppress lactation nor suppress serum prolactin.[7]

References

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Substance Identification

Substance Name

Clomiphene

CAS Registry Number

911-45-5

Drug Class

Breast Feeding

Lactation

Estrogen Antagonists

Fertility Agents

Female, Selective Estrogen Receptor Modulators