



Interferon Alfa

Revised: September 15, 2023.

CASRN: 98530-12-2; 76543-88-9; 77907-69-8

Drug Levels and Effects

Summary of Use during Lactation

Because of the low levels in milk and poor oral absorption by the infant, it is unlikely that interferon use by a nursing mother presents any serious risk to the breastfed infant.[1]

For treating maternal hepatitis B, no difference exists in infection rates between breastfed and formula-fed infants born to hepatitis B-infected women, if the infant receives hepatitis B immune globulin and hepatitis B vaccine at birth. Mothers with hepatitis B are encouraged to breastfeed their infants after their infants receive these preventative measures.[2,3]

Hepatitis C is not transmitted through breastmilk and breastmilk has been shown to inactivate hepatitis C virus (HCV).[4-7] However, the Centers for Disease Control recommends that mothers with HCV infection should consider abstaining from breastfeeding if their nipples are cracked or bleeding. It is not clear if this warning would apply to mothers who are being treated for hepatitis C.

Infants born to mothers with HCV infection should be tested for HCV infection; because maternal antibody is present for the first 18 months of life and before the infant mounts an immunologic response, nucleic acid testing is recommended.[4,7]

Drug Levels

Maternal Levels. Two mothers taking interferon alfa had milk levels measured. One mother taking 8 million units three times a week had a milk level of 1400 units/L and another taking 8 million units daily had a milk level of 6000 units/L. Both levels were apparently measured immediately postpartum (in colostrum), but the time since the previous dose was not stated.[8]

An intravenous dose of 30 million units of interferon alfa-2B in one woman resulted in a peak milk level of 1551 International Units/L which was a slight increase over two baseline levels prior to the dose which averaged 1072 International Units/L. By 12 hours after the dose, milk interferon levels were lower than baseline.[9]

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.

Attribution Statement: LactMed is a registered trademark of the U.S. Department of Health and Human Services.

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

Effects in Breastfed Infants

One infant was born to a mother who received 3 million units of interferon alfa-2a subcutaneously 3 times weekly during pregnancy and postpartum for essential thrombocytopenia. Her infant was breastfed for 2 weeks postpartum before bilateral mastitis caused the mother to terminate nursing. The infant reportedly thrived, although specific measures were not mentioned.[10]

Effects on Lactation and Breastmilk

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

Alternate Drugs to Consider

(Hepatitis B) [Lamivudine](#), [Tenofovir](#); (Hepatitis C) [Interferon Alfacon-1](#), [Peginterferon Alfa](#)

References

1. Balsat M, Etienne M, Elhamri M, et al. Successful pregnancies in patients with BCR-ABL-positive leukemias treated with interferon-alpha therapy during the tyrosine kinase inhibitors era. *Eur J Haematol* 2018;101:774-80. PubMed PMID: 30179268.
2. Visvanathan K, Dusheiko G, Giles M, et al. Managing HBV in pregnancy. Prevention, prophylaxis, treatment and follow-up: Position paper produced by Australian, UK and New Zealand key opinion leaders. *Gut* 2016;65:340-50. PubMed PMID: 26475631.
3. Dionne-Odom J, Tita AT, Silverman NS. #38: Hepatitis B in pregnancy screening, treatment, and prevention of vertical transmission. *Am J Obstet Gynecol* 2016;214:6-14. PubMed PMID: 26454123.
4. Cottrell EB, Chou R, Wasson N, et al. Reducing risk for mother-to-infant transmission of hepatitis C virus: A systematic review for the U.S. Preventive Services Task Force. *Ann Intern Med* 2013;158:109-13. PubMed PMID: 23437438.
5. Pfaender S, Heyden J, Friesland M, et al. Inactivation of hepatitis C virus infectivity by human breast milk. *J Infect Dis* 2013;208:1943-52. PubMed PMID: 24068703.
6. Tovo PA, Calitri C, Scolfaro C, et al. Vertically acquired hepatitis C virus infection: Correlates of transmission and disease progression. *World J Gastroenterol* 2016;22:1382-92. PubMed PMID: 26819507.
7. Workowski KA, Bachmann LH, Chan PA, et al. Sexually transmitted infections treatment guidelines, 2021. *MMWR Recomm Rep* 2021;70:1-187.
8. Haggstrom J, Adriansson M, Hybbinette T, et al. Two cases of CML treated with alpha-interferon during second and third trimester of pregnancy with analysis of the drug in the new-born immediately postpartum. *Eur J Haematol* 1996;57:101-2. Letter. PubMed PMID: 8698119.
9. Kumar AR, Hale TW, Mock RE. Transfer of interferon alfa into human breast milk. *J Hum Lact* 2000;16:226-8. PubMed PMID: 11153157.
10. Williams JM, Schlesinger PE, Gray AG. Successful treatment of essential thrombocythaemia and recurrent abortion with alpha interferon. *Br J Haematol* 1994;88:647-8. PubMed PMID: 7819084.

Substance Identification

Substance Name

Interferon Alfa

CAS Registry Number

98530-12-2; 76543-88-9; 77907-69-8

Drug Class

Breast Feeding

Lactation

Milk, Human

Anti-Infective Agents

Antiviral Agents

Antineoplastic Agents