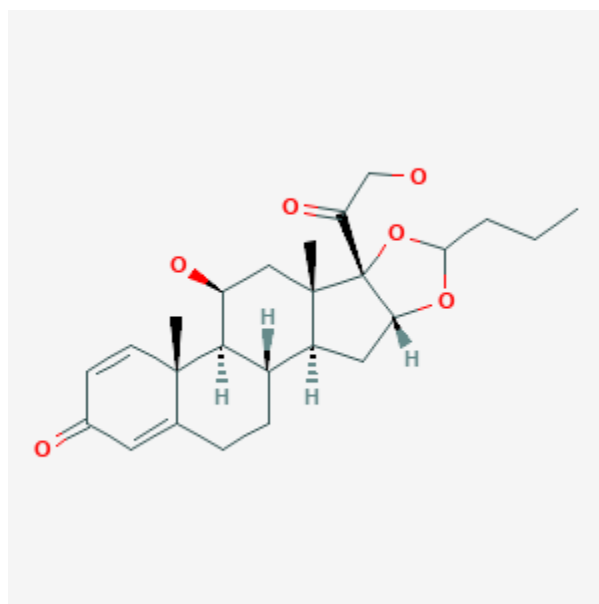




Budesonide

Revised: October 31, 2018.

CASRN: 51333-22-3



Drug Levels and Effects

Summary of Use during Lactation

The amounts of inhaled budesonide excreted into breastmilk are minute and infant exposure is negligible. When taken by mouth, budesonide is only about 9% bioavailable; bioavailability in the infant is likely to be similarly low for any budesonide that enters the breastmilk. Most experts consider oral and inhaled corticosteroids, including budesonide, acceptable to use during breastfeeding.[1][2][3][4][5]

Drug Levels

Maternal Levels. Eight women with asthma were using inhaled budesonide 200 mcg (n = 4) or 400 mcg twice daily (n = 4) by Pulmicort Turbinaler. Peak milk levels of budesonide of 168 ng/L and 335 ng/L occurred at 32 and 43 minutes after inhalation with the 200 mcg and 400 mcg doses, respectively. Average infant doses were estimated to be 6.8 and 14.2 ng/kg daily for the 200 mcg and 400 mcg dosages. A fully breastfed infant would

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 .

receive a maximum of 0.3% of the weight-adjusted maternal dosage, assuming 100% oral bioavailability from breastmilk.[6]

Infant Levels. Four infants whose mothers were taking budesonide 200 mcg (n = 2) or 400 mcg (n = 2) twice daily by Pulmicort Turbinaler. The infants had serum samples taken 1.5 hours (range 0.7 to 2 hours) after the first breastfeeding after drug administration and 2.3 hours (range 2.1 to 2.6 hours) after maternal drug inhalation. All had undetectable (<8.6 to 17.2 ng/L) serum budesonide concentrations.[6]

Effects in Breastfed Infants

None reported with any corticosteroid.

Effects on Lactation and Breastmilk

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

Alternate Drugs to Consider

Beclomethasone

References

1. Greenberger PA, Patterson R. The management of asthma during pregnancy and lactation. *Clin Rev Allergy.* 1987;5:317-24. PubMed PMID: 3319123.
2. Ellsworth A. Pharmacotherapy of asthma while breastfeeding. *J Hum Lact.* 1994;10:39-41. PubMed PMID: 7619245.
3. National Heart, Lung, and Blood Institute, National Asthma Education and Prevention Program Asthma and Pregnancy Working Group. NAEPP expert panel report. Managing asthma during pregnancy: recommendations for pharmacologic treatment-2004 update. 2004;1-57. Available at: <http://www.nhlbi.nih.gov/health/prof/lung/asthma/astpreg.htm>
4. Nielsen OH, Maxwell C, Hendel J. IBD medications during pregnancy and lactation. *Nat Rev Gastroenterol Hepatol.* 2014;11:116-27. PubMed PMID: 23897285.
5. Mahadevan U, Matro R. Care of the pregnant patient with inflammatory bowel disease. *Obstet Gynecol.* 2015;126:401-12. PubMed PMID: 26241432.
6. Falt A, Bengtsson T, Kennedy BM et al. Exposure of infants to budesonide through breast milk of asthmatic mothers. *J Allergy Clin Immunol.* 2007;120:798-802. PubMed PMID: 17825891.

Substance Identification

Substance Name

Budesonide

CAS Registry Number

51333-22-3

Drug Class

Breast Feeding

Lactation

Anti-Asthmatic Agents

Corticosteroids, Inhaled

Anti-allergic Agents

Corticosteroids, Systemic

Glucocorticoids

Anti-Inflammatory Agents