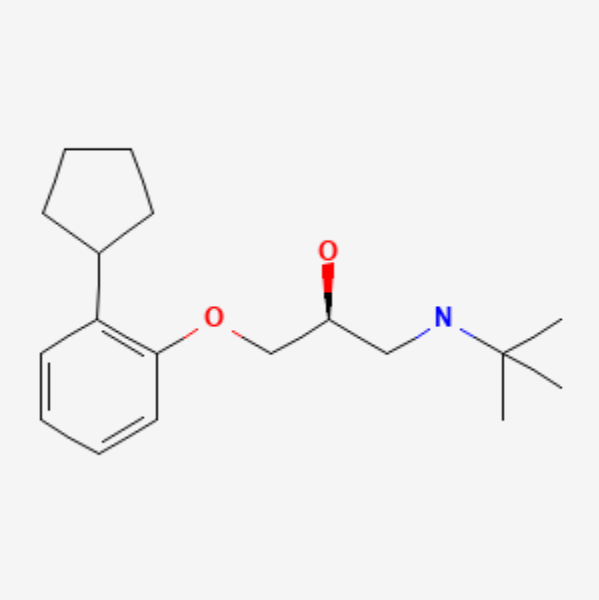
U.S. National Library of Medicine
National Center for Biotechnology Information

NLM Citation: Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006-. Penbutolol. [Updated 2021 Feb 15].
Bookshelf URL: https://www.ncbi.nlm.nih.gov/books/

Penbutolol

Revised: February 15, 2021.

CASRN: 36507-48-9



Drug Levels and Effects

Summary of Use during Lactation

Based on its physicochemical properties, penbutolol appears to present a low-risk to the breastfed infant. Because there is no published experience with penbutolol during breastfeeding, other agents may be preferred, especially while nursing a newborn or preterm infant.

Drug Levels

The excretion of beta-adrenergic blocking drugs into breastmilk is largely determined by their protein binding. Those with low binding are more extensively excreted into breastmilk.[1] Accumulation of the drugs in the

infant is related to the fraction excreted in urine. With 80 to 90% protein binding, 5% renal excretion and a moderate half-life, penbutolol presents a low risk for accumulation in infants.

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

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

Effects in Breastfed Infants

Relevant published information on penbutolol was not found as of the revision date. A study of mothers taking beta-blockers during nursing found a numerically, but not statistically significant increased number of adverse reactions in those taking any beta-blocker. Although the ages of infants were matched to control infants, the ages of the affected infants were not stated. None of the mothers were taking penbutolol.[2]

Effects on Lactation and Breastmilk

Relevant published information on the effects of beta-blockade or penbutolol during normal lactation was not found as of the revision date. A study in 6 patients with hyperprolactinemia and galactorrhea found no changes in serum prolactin levels following beta-adrenergic blockade with propranolol.[3]

Alternate Drugs to Consider

Propranolol, Labetalol, Metoprolol

References

1. Riant P, Urien S, Albengres E, et al. High plasma protein binding as a parameter in the selection of betablockers for lactating women. Biochem Pharmacol. 1986;35:4579–81. PubMed PMID: 2878668.
2. Ho TK, Moretti ME, Schaeffer JK, et al. Maternal beta-blocker usage and breast feeding in the neonate. Pediatr Res. 1999;45(4, pt. 2):67A–Abstract 385. doi: 10.1203/00006450-199904020-00402.
3. Board JA, Fierro RJ, Wasserman AJ, et al. Effects of alpha- and beta-adrenergic blocking agents on serum prolactin levels in women with hyperprolactinemia and galactorrhea. Am J Obstet Gynecol. 1977;127:285–7. PubMed PMID: 556882.

Substance Identification

Substance Name

Penbutolol

CAS Registry Number

36507-48-9

Drug Class

Breast Feeding

Lactation

Antihypertensive Agents

Adrenergic Beta-Antagonists

Antiarrhythmics