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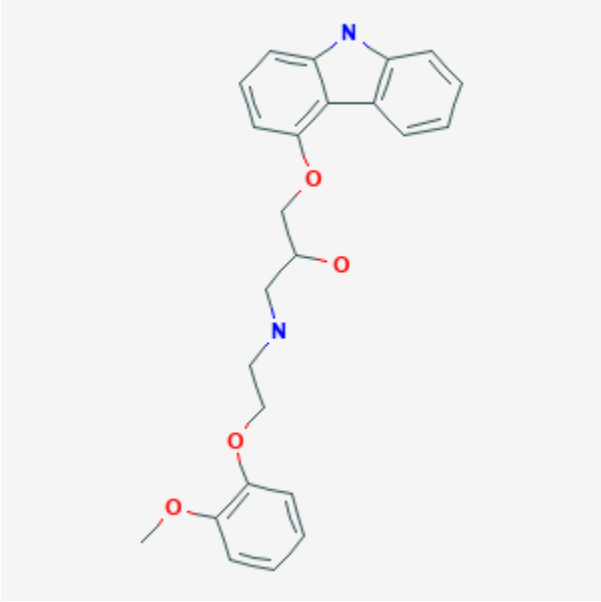
Carvedilol

Revised: October 31, 2018.

CASRN: 72956-09-3



Drug Levels and Effects

Summary of Use during Lactation

Based on its physicochemical properties, carvedilol appears to present a low-risk to the breastfed infant. Because there is no published experience with carvedilol 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 95% protein binding, 1% renal excretion and a moderately long half-life, carvedilol 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

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 carvedilol.[2]

Effects on Lactation and Breastmilk

Relevant published information on the effects of beta-blockade or carvedilol 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;45:67A. Abstract 385.
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

Carvedilol

CAS Registry Number

72956-09-3

Drug Class

Breast Feeding

Lactation

Antihypertensive Agents

Adrenergic Beta-Antagonists

Antirrhythmics