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Metipranolol

Revised: October 31, 2018.

CASRN: 22664-55-7

Drug Levels and Effects

Summary of Use during Lactation

Based on its physicochemical properties and its ophthalmic route of administration, metipranolol eye drops would not be expected to cause any adverse effects in breastfed infants. To substantially diminish the amount of drug that reaches the breastmilk after using eye drops, place pressure over the tear duct by the corner of the eye for 1 minute or more, then remove the excess solution with an absorbent tissue.

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 70% protein binding, 10% renal excretion and a moderately short half-life, metipranolol presents moderately 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 metipranolol 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 metipranolol.[2]

Effects on Lactation and Breastmilk

Relevant published information on the effects of beta-blockade or metipranolol 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

(Ophthalmic) Levobunolol, Timolol

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

Metipranolol

CAS Registry Number

22664-55-7

Drug Class

Breast Feeding

Lactation

Antihypertensive Agents

Adrenergic Beta-Antagonists

Antiglaucoma Agents

Antiarrhythmics