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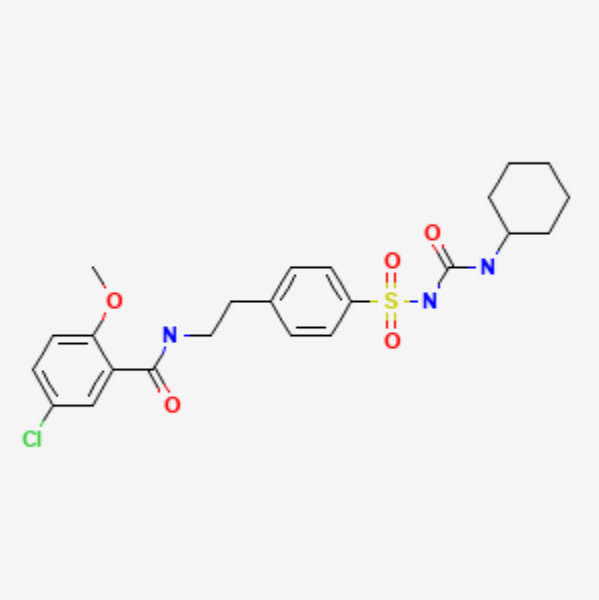
Glyburide

Revised: June 15, 2024.

CASRN: 10238-21-8



Drug Levels and Effects

Summary of Use during Lactation

Limited data indicate that the levels of glyburide in milk are negligible. Monitor breastfed infants for signs of hypoglycemia such as jitteriness, excessive sleepiness, poor feeding, seizures cyanosis, apnea, or hypothermia. If there is concern, monitoring of the breastfed infant's blood glucose is advisable during maternal therapy with hypoglycemic agents.[1,2]

Drug Levels

Maternal Levels. Eight women who had recently delivered were given a single dose of glyburide 5 mg (n = 6) or 10 mg (n = 2) orally. Glyburide was undetectable (<5 mcg/L) in milk at 2, 4, 6 and 8 hours after the dose. The

authors estimated that the maximum dosages that a fully breastfed infant would receive with the 5 and 10 mg doses are <1.5% and <0.7% of the maternal weight-adjusted dosage, respectively.[3,4]

In a separate study reported in the same paper, 3 women who had delivered via cesarean section and were receiving glyburide 5 mg daily in the immediate postoperative period had milk glyburide levels measured. Trough glyburide milk levels were undetectable (<80 mcg/L).[3]

A mother with diabetes caused by a genetic mutation required a very high dose of 85 mg daily of glyburide, which was increased to 90 mg daily during pregnancy. Her milk glyburide levels were 7.3 mcg/L on day 3 postpartum and 3.1 mcg/L on day 6, although the times with respect to the dosage were not reported. The authors estimated that the breastfed infant would receive a daily dosage of less than 0.01 mg daily.[5]

Infant Levels. A preterm infant whose mother was taking a high dose of glyburide of 90 mg daily at delivery was hypoglycemic at birth and required high doses of intravenous glucose for 8 days after birth. The infant was breastfed (extent not stated) and had glyburide serum levels of 9 mcg/L on day 3 postpartum and 9.8 mcg/L on day 19. The authors speculated that breastfeeding might have prolonged the infant's high serum glyburide levels, although they calculated that the infant would have received less than 0.01 mg of the drug daily via breastmilk. [5]

Effects in Breastfed Infants

The blood glucose level was normal in one breastfed infant whose mothers was taking oral glyburide 5 mg daily. [3]

Effects on Lactation and Breastmilk

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

Alternate Drugs to Consider

Acarbose, Glipizide, Insulin, Metformin, Miglitol

References

1. Everett JA. Use of oral antidiabetic agents during breastfeeding. J Hum Lact 1997;13:319-21. PubMed PMID: 9429368.
2. Berlin CM, Briggs GG. Drugs and chemicals in human milk. Semin Fetal Neonatal Med 2005;10:149-59. PubMed PMID: 15701580.
3. Feig DS, Briggs GG, Kraemer JM, et al. Transfer of glyburide and glipizide into breast milk. Diabetes Care 2005;28:1851-5. PubMed PMID: 16043722.
4. Feig DS, Kraemer JM, Moskovitz DN, et al. The transfer of glyburide into breast milk. Clin Pharmacol Ther 2004;75:P24. doi:10.1016/j.clpt.2003.11.089
5. Myngheer N, Allegaert K, Hattersley A, et al. Fetal macrosomia and neonatal hyperinsulinemic hypoglycemia associated with transplacental transfer of sulfonylurea in a mother with KCNJ11-related neonatal diabetes. Diabetes Care 2014;37:3333-5. PubMed PMID: 25231897.

Substance Identification

Substance Name

Glyburide

CAS Registry Number

10238-21-8

Drug Class

Breast Feeding

Lactation

Milk, Human

Hypoglycemic Agents

Sulfonylurea Compounds