

ORAL ANTIDIABETIC USE IN BREASTFEEDING MOTHER

Class and Drug	Excreted into human milk	Excreted into animal milk	Comment
Pioglitazone ¹	Unknown	Yes	A decision should be made to discontinue breastfeeding or discontinue the drug, taking into account the importance of the drug to the mother.
Repaglinide ²	Unknown	Yes	Measurable levels of this drug have been detected in the breast milk of rats resulting in lowered blood glucose levels in the pups. There is no information available on its excretion in human milk. AU: Use is contraindicated UK: Use is not recommended US: A decision should be made to discontinue breastfeeding or discontinue the drug, taking into account the importance of the drug to the mother
Metformin / saxagliptin ³	Unknown (saxagliptin); Yes (metformin)	Yes (saxagliptin); Yes (metformin)	There are no studies with the combined use of saxagliptin-metformin. Animal studies have shown the excretion of both saxagliptin and metformin in animal milk. Metformin has been detected in low levels in human milk. Well-conducted studies have estimated that an infant would receive less than 0.5% of their mother's weight-adjusted metformin dosage, and while the dose is low, detectable levels have been found in the serum of breastfed infants. For this reason, metformin should be used with caution while nursing newborn and premature infants and those with renal impairment. AU and UK: Use is contraindicated US: Caution is advised
Metformin ⁴	Yes	Yes	Available data have not reported adverse effects in breastfed infants; however, this data is limited. -Due to this limited data, product manufacturers recommend a decision should be made to discontinue nursing or discontinue the drug, considering the importance of the drug to the mother. -Published data suggest this drug is compatible with breastfeeding; they recommend caution when nursing a newborn or premature infant, and those with renal impairment.
Acarbose ⁵	Unknown	Yes	This drug and/or its metabolites have been found in the milk of lactating rats with levels reaching 10 times the maternal plasma levels. Less than 2% of a dose is absorbed from the mother's gastrointestinal tract making the likelihood of it reaching the infant through breast milk unlikely. However since there is no information in women using this drug while breastfeeding, alternate therapy should be considered.
Glibenclamide (Glyburide) ⁶	Yes		There is limited data which suggests negligible levels of this drug are present in breast milk. A study in 8 women receiving a single-dose shortly after delivery estimates the maximum dose a fully breastfed infant would receive with 5 and 10 mg doses at less than 1.5% and less than 0.7% of the maternal weight-adjusted dose, respectively. Due to the limited data available and the potential for hypoglycemia in the nursing infant, the manufacturer suggests women who are not able to manage their blood sugar on diet alone consider insulin therapy while breastfeeding.
Glyburide / metformin ⁷	Yes (glyburide); Yes (metformin)		Use is not recommended, and a decision should be made to discontinue breastfeeding or discontinue the drug, taking into account the importance of the drug to the mother.
Gliclazide ⁸	unknown		Contraindicated
Glipizide ⁹	Yes		If diet alone is inadequate for controlling blood glucose, insulin should be considered as alternative therapy. Breastfed infants should be monitored closely for signs of hypoglycemia; if there is a concern, blood glucose monitoring is advisable.
Glimepiride ¹⁰	Unknown	Yes	Significant concentrations of this drug have been found in rat milk as well as the serum of pups. In rat pups exposed to high doses during pregnancy and lactation, hypoglycemia and skeletal deformities consisting of shortening, thickening, and bending of the humerus have occurred. Breastfeeding is not recommended during use of this drug.

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Sitagliptin ¹¹	Unknown	Yes	US: Use caution AU and UK: Use is not recommended.
Vildagliptin ¹²	Unknown	Yes	Vildagliptin should not be used during breast-feeding.
Saxagliptin ¹³	Unknown	Yes	AU, US: Caution is recommended. UK: A decision should be made to discontinue breastfeeding or discontinue the drug, taking into account the importance of the drug to the mother.
Linagliptin ¹⁴	Unknown	Yes	US: Caution is recommended. An alternative drug may be preferred, especially while nursing a newborn or a preterm infant. UK and AU: A decision should be made to discontinue breastfeeding or discontinue the drug, taking into account the importance of the drug to the mother.
Metformin / sitagliptin ¹⁵	Unknown (sitagliptin); Yes (metformin)	Yes (sitagliptin); Yes (metformin)	Contraindicated
Vildagliptin/ metformin ¹⁶	Unknown (vildagliptin); Yes (metformin)	Yes (vildagliptin); Yes (metformin)	Contraindicated
Linagliptin / metformin ¹⁷	Unknown (linagliptin); Yes (metformin)	Yes (linagliptin); Yes (metformin)	Use should be avoided: A decision should be made to discontinue breastfeeding or discontinue drug, taking into account the importance of the drug to the mother and breastfeeding to the child.

References:

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