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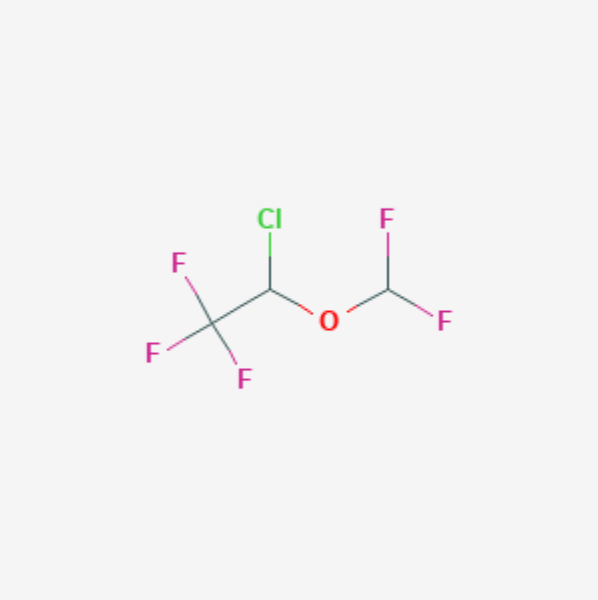
Isoflurane

Revised: October 31, 2018.

CASRN: 26675-46-7



Drug Levels and Effects

Summary of Use during Lactation

There is no published experience with isoflurane during breastfeeding. Because the serum half-life of isoflurane in the mother is short and the drug is not expected to be absorbed by the infant, no waiting period or discarding of milk is required.[1] Breastfeeding can be resumed as soon as the mother has recovered sufficiently from general anesthesia to nurse. When a combination of anesthetic agents is used for a procedure, follow the recommendations for the most problematic medication used during the procedure. In one study, breastfeeding before general anesthesia induction reduced requirements of sevoflurane and propofol compared to those of nursing mothers whose breastfeeding was withheld or nonnursing women.[2] It is possible that requirements for other anesthetic agents would be affected similarly.

Drug Levels

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 was not found as of the revision date.

Effects on Lactation and Breastmilk

A randomized, but nonblinded, study in women undergoing cesarean section compared epidural anesthesia with bupivacaine to general anesthesia with intravenous thiopental 4 mg/kg and succinylcholine 1.5 mg/kg for induction followed by nitrous oxide and isoflurane. The time to the first breastfeed was significantly shorter (107 vs 228 minutes) with the epidural anesthesia than with general anesthesia. This difference was probably caused by the anesthesia's effects on the infant, because the Apgar and neurologic and adaptive scores were significantly lower in the general anesthesia group of infants.[3]

Alternate Drugs to Consider

Desflurane, Enflurane, Sevoflurane

References

1. Lee JJ, Rubin AP. Breast feeding and anaesthesia. Anaesthesia. 1993;48:616-25. PubMed PMID: 8346780.
2. Bhaskara B, Dayananda VP, Kannan S et al. Effect of breastfeeding on haemodynamics and consumption of propofol and sevoflurane: A state entropy guided comparative study. Indian J Anaesth. 2016;60:180-6. PubMed PMID: 27053781.
3. Sener EB, Guldogus N, Karakaya D et al. Comparison of neonatal effects of epidural and general anesthesia for cesarean section. Gynecol Obstet Investig. 2003;55:41-55. PubMed PMID: 12624551.

Substance Identification

Substance Name

Isoflurane

CAS Registry Number

26675-46-7

Drug Class

Breast Feeding

Lactation

Anesthetics, Inhalation