

NLM Citation: Drugs and Lactation Database (LactMed®) [Internet]. Bethesda (MD): National Institute of Child Health and Human Development; 2006-. Iodohippurate Sodium I 131. [Updated 2023 Oct 15].

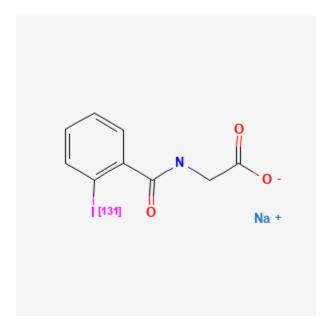
Bookshelf URL: https://www.ncbi.nlm.nih.gov/books/



lodohippurate Sodium I 131

Revised: October 15, 2023.

CASRN: 881-17-4



Drug Levels and Effects

Summary of Use during Lactation

Information in this record refers to the use of iodohippurate sodium I 131 (ortho-iodohippurate sodium I 131; I-131 OIH) as a diagnostic agent. A US Nuclear Regulatory Commission subcommittee has recommended should be interrupted for 4 hours after administration of I-131 OIH.[1] However, some experts recommend nursing the infant just before administration of the radiopharmaceutical and interrupting breastfeeding for 12 to 30 hours after the dose.[2-4] If the mother has expressed and saved milk prior to the examination, she can feed it to the infant during the period of nursing interruption.[2,5,6] Mothers concerned about the level of radioactivity in their milk could ask to have it tested at a nuclear medicine facility at their hospital. When the radioactivity is

Disclaimer: Information presented in this database is not meant as a substitute for professional judgment. You should consult your healthcare provider for breastfeeding advice related to your particular situation. The U.S. government does not warrant or assume any liability or responsibility for the accuracy or completeness of the information on this Site.

Attribution Statement: LactMed is a registered trademark of the U.S. Department of Health and Human Services.

at a safe level, she may resume breastfeeding. A method for measuring milk radioactivity and determining the time when a mother can safely resume breastfeeding has been published.[7]

Nursing mothers should not work with substances containing I 131 in their workplace.[8]

Drug Levels

I 131 is a beta and high-energy gamma emitter with a main gamma emission energy of 364 keV and a physical half-life of 8.04 days.[1] The effective half-life of I-131 OIH averages 4.5 to 6.3 hours (range 2.2 to 7.6 hours). [2,3,7] About 2.4% of an administered dose is excreted into breastmilk.[3]

Effects in Breastfed Infants

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

Effects on Lactation and Breastmilk

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

References

- Dilsizian V, Metter D, Palestro C, Zanzonico P. Advisory Committee on Medical Uses of Isotopes (ACMUI) Sub-Committee on Nursing Mother Guidelines for the Medical Administration of Radioactive Material. Final report submitted: January 31, 2019. 2019. Available at: https://www.nrc.gov/docs/ML1903/ ML19038A498.pdf
- 2. Mountford PJ, Coakley AJ. A review of the secretion of radioactivity in human breast milk: Data, quantitative analysis and recommendations. Nucl Med Commun 1989;10:15-27. PubMed PMID: 2645546.
- 3. Leide-Svegborn S, Ahlgren L, Johansson L, Mattsson S. Excretion of radionuclides in human breast milk after nuclear medicine examinations. Biokinetic and dosimetric data and recommendations on breastfeeding interruption. Eur J Nucl Med Mol Imaging 2016;43:808-21. PubMed PMID: 26732471.
- 4. Mattsson S, Johansson L, Leide Svegborn S, et al. Radiation dose to patients from radiopharmaceuticals: A compendium of current information related to frequently used substances. ICRP Publication 128. Annex D. Recommendations on breast-feeding interruptions. Ann ICRP 2015;44 (2 Suppl):319-21.
- 5. Early PJ, Sodee DB. Principles and practice of nuclear medicine. 2nd ed. St Louis Mosby-Year Book, Inc 1995:1380-1.
- 6. ARSAC notes for guidance: Good clinical practice in nuclear medicine. Notes for guidance on the clinical administration of radiopharmaceuticals and use of sealed radioactive sources. 2020. Available at: https://www.gov.uk/government/publications/arsac-notes-for-guidance
- 7. Stabin MG, Breitz HB. Breast milk excretion of radiopharmaceuticals: Mechanisms, findings, and radiation dosimetry. J Nucl Med 2000;41:863-73. PubMed PMID: 10809203.
- 8. Almén A, Mattsson S. Radiological protection of foetuses and breast-fed children of occupationally exposed women in nuclear medicine Challenges for hospitals. Phys Med 2017;43:172-7. PubMed PMID: 28882410.

Substance Identification

Substance Name

Iodohippurate Sodium I 131

CAS Registry Number

Drug Class

Breast Feeding

Lactation

Milk, Human

Radiopharmac euticals

Iodine Radioisotopes

Diagnostic Agents