



Sodium Iodide I 131

Revised: June 30, 2019.

CASRN: 7790-26-3



Drug Levels and Effects

Summary of Use during Lactation

Information in this record refers to the use of sodium iodide I 131 as a diagnostic and therapeutic agent. The use of I 131 is contraindicated during lactation.[1] Breastfeeding should be discontinued permanently for this child after administration of sodium iodide I 131 in a dose of 0.01 MBq (0.004 mCi) or greater to a nursing mother.[2] [3][4][5][6][7][8][9] Ceasing breastfeeding at least 4 weeks before receiving a therapeutic dose of sodium iodide I 131 is recommended to reduce the radiation dose to the breasts and the risk of milk leakage that can contaminate clothing with radioactive iodine.[4][10][11] The American Thyroid Association recommends using I 123 or Tc99m pertechnetate scans for diagnosis of hyperthyroidism in nursing mothers.[1]

Parents should refrain from close contact with their infants after therapeutic iodine 131 administration. The exact duration depends on the dose administered, condition being treated, and source of the recommendation.

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 .

[2][12][13] Recommended times range from 15 to 27 days after hyperthyroidism treatment, 16 to 24 days after ablation of thyroid cancer, and 4 to 5 days after follow-up therapy of thyroid ablation therapy.[13]

Nursing mothers should not work with substances containing I 131 in their workplace.[14]

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.[2] Estimates of the average effective half-life of sodium iodide I 131 vary from 9.2 hours to 14 hours, and it may be as long as 48 hours in some patients. Iodide is actively secreted into breastmilk and actively taken up by the mother's and infant's thyroid glands. About 31% (range 25% to 48%) of administered radioactivity is excreted into breastmilk after administration of sodium iodide I 131.[15][16]

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.

Alternate Drugs to Consider

(Hyperthyroidism Diagnosis) [Sodium Pertechnetate Tc 99m](#), [Sodium Iodide I 123](#); (Hyperthyroidism Treatment) [Propylthiouracil](#), [Methimazole](#)

References

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Substance Identification

Substance Name

Sodium Iodide I 131

CAS Registry Number

7790-26-3

Drug Class

Breast Feeding

Lactation

Radiopharmaceuticals

Iodine Radioisotopes