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Indium In 111 Pentetreotide

Revised: June 30, 2019.

CASRN: 139096-04-1

Drug Levels and Effects

Summary of Use during Lactation

Information in this record refers to the use of indium In 111 pentetreotide as a diagnostic agent. Recommendations for use in breastfeeding mothers range from no withholding of breastfeeding necessary[1] to 60 hours after a dose of 100 to 220 MBq.[2][3]

In some cases, imaging with indium In 111 pentetreotide is followed shortly by a therapy (peptide receptor radiotherapy; PRRT) that uses yttrium 90 or lutetium 177 compounds to selectively irradiate tumors. These agents may pose additional radiation risk to the nursing infant.[4]

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 at a safe level she may resume breastfeeding. A method for

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measuring milk radioactivity and determining the time when a mother can safely resume breastfeeding has been published.[5]

Drug Levels

In 111 decays by electron capture with 171 and 245 keV gamma emissions and a physical half-life of 2.8 days.[6] The biological half-life of indium In-111 pentetreotide is 6 hours.[7]

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

- 1. Balon HR, Brown TL, Goldsmith SJ et al. The SNM practice guideline for somatostatin receptor scintigraphy 2.0. J Nucl Med Technol. 2011;39:317-24. PubMed PMID: 22068564.
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- 3. National Radiation Protection Board (UK). Administration of radioactive substances advisory committee. Notes for guidance on the clinical administration of radiopharmaceuticals and use of sealed radioactive sources. 2019. Available at: https://assets.publishing.service.gov.uk/government/.../file/.../
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- 6. Howe DB, Beardsley M, Bakhsh S. Appendix U. Model procedure for release of patients or human research subjects administered radioactive materials. In, NUREG-1556. Consolidated guidance about materials licenses. Program-specific guidance about medical use licenses. Final report. U.S. Nuclear Regulatory Commission Office of Nuclear Material Safety and Safeguards. 2008;9, Rev. 2. Available at: http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/v9/r2/
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Substance Identification

Substance Name

Indium In 111 Pentetreotide

CAS Registry Number

139096-04-1

Drug Class

Breast Feeding

Lactation

Indium In 111 Pentetreotide

Radiopharmac euticals

Indium Radioisotopes

Diagnostic Agents