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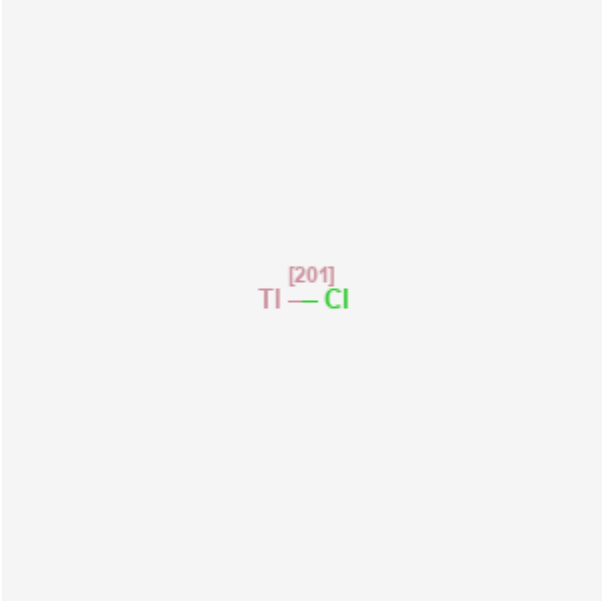
Thallous Chloride Tl 201

Revised: June 30, 2019.

CASRN: 55172-29-7



Drug Levels and Effects

Summary of Use during Lactation

Information in this record refers to the use of thallous chloride Tl 201 as a diagnostic agent. Most experts recommend a period of breastfeeding interruption after maternal thallous chloride Tl 201, although some disagreement exists on the exact duration, probably because of the long physical half-life of the radioisotope and variable elimination of the drug from the body. One older paper recommends a 2-week discontinuation period after a dose of 110 MBq.[1] During the period of interruption, the breasts should be emptied regularly and completely. 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][3][4] The milk that is pumped by the mother during the time of breastfeeding interruption can either be discarded or stored frozen and given to the infant after 10 physical half-lives, or about 30 days, have elapsed. After doses greater than 150 MBq, consideration of temporarily limiting close contact between the mother and 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 background levels they may safely resume breastfeeding. A method for measuring milk radioactivity and determining the time when a mother can safely resume breastfeeding has been published.[5]

Dose	Duration of Interruption
100 MBq (3 mCi)	4 days[5][6]
80 MBq (2.4 mCi)	10 hours[4]

Drug Levels

Thallium Tl 201 decays by electron capture with principal photon energies of 135.3 and 167.4 keV and a physical half-life of 3.044 days.[1] The effective half-life of thallous chloride Tl 201 ranges from 11 to 60.8 hours.[2]

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

Technetium Tc 99m Sestamibi, Technetium Tc 99m Tetrofosmin

References

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3. Early PJ, Sodee DB. Principles and practice of nuclear medicine. 2nd ed. St. Louis. Mosby-Year Book, Inc.1995:1380-1.
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Substance Identification

Substance Name

Thallous Chloride Tl 201

CAS Registry Number

55172-29-7

Drug Class

Breast Feeding

Lactation

Radiopharmaceuticals

Thallium Radioisotopes

Diagnostic Agents