Liothyronine Intravenous for Adults

Who can administer

May be administered by registered competent doctor or nurse/midwife

Important information

- Due to a **national shortage** of the preparation that is normally available in Ireland, importation of a new preparation from the USA is required.
- Note this is a **different concentration**, and also must be stored in a **fridge**

Available preparations

Current product in use (due to shortages of previous preparations)

- Liothyronine sodium 10 micrograms per 1mL vial (XGen brand)
- **Note: change of concentration from previously available preparations**

Reconstitution

Already in solution

Infusion fluids

Not applicable

Methods of intravenous administration

Slow intravenous injection

- Administer over at least 3 minutes [ref 1]
- May dilute to 5mL with Water for Injections to aid slow administration [ref 5]

Dose in adults

Myxedema coma [ref 4]

- Give 5 to 20micrograms every 12 hours, increased to 5 to 20micrograms every 4 hours if required
- Alternatively initially 50micrograms for 1 dose, then 25micrograms every 8 hours. This may then be reduced to 25micrograms twice daily if appropriate
- The minimum interval between doses is 4 hours [ref 2]

- With regular dosing the peak therapeutic effect is usually achieved within 2 to 3 days; on withdrawal its effects may persist for 1 to 2 days [ref 2)]
- As each vial is 10 micrograms and they are generally **in short supply please** consider a **dosage regimen** that **minimises wastage** of drug as well as efficacy and safety

Organ donation

- Awaiting national decision on use for this indication
- If required, contact Lead Consultant in Organ Donation

Equivalent doses [ref 2,4)]

- Liothyronine sodium 10.3microgram is equivalent to about 10micrograms of liothyronine.
- Liothyronine sodium 20 to 25 micrograms is generally considered to be equivalent in activity to about 100micrograms of levothyroxine sodium

Storage

XGen brand - store in a refrigerator 2-8^{0}C

References

Liothyronine Sodium SPC - US product- 12/2023

1. Injectable Medicines Guide Medusa, downloaded 26/01/2026

2: Martindale accessed online 26/01/2026

3: Organ Donation Transplant Ireland guidelines

4: BNF accessed online 26/01/2026

5. Injectable Drugs Guide, downloaded from MedicinesComplete 03/02/2026

Therapeutic classification

Thyroid/Endocrine (Search term thyroxine)