

## Who can administer

May be administered by registered competent doctor or nurse/midwife

## Available preparations

Liothyronine 20 micrograms (Mercury) powder for solution for injection

Triiodothyronine 20 micrograms powder for solution for injection

## Reconstitution

Reconstitute with 1 or 2mL of water for injection

## Infusion fluids

Not applicable

For Organ donation indication - see below

## Methods of intravenous administration

### Slow intravenous injection

- Administer over at least 3 minutes <sup>(ref 1)</sup>
- May dilute to 5mL with Sodium chloride 0.9% to aid slow administration

## Dose in adults

### Myxedema coma

- Give 5 to 20 micrograms, repeated every 12 hours, or less if required.
- The minimum interval between doses is four hours
- An initial dose of 50 micrograms is used by some physicians, followed by further injections of 25 micrograms every eight hours until improvement occurs. The dosage may then be reduced to 25 micrograms twice daily
- In elderly patients with severe long-standing hypothyroidism, treatment with liothyronine sodium should be introduced with doses at the lower end of the dose range, with smaller increments and longer intervals between increases as necessary
- 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 <sup>(ref 2)</sup>
- As each vial is 20 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 (ref 1,3)

- Dilute 20 micrograms (1ml) with 5ml Sodium chloride 0.9%
- Administer 4 microgram bolus dose, followed by a continuous infusion of 3 micrograms per hour

### Equivalent doses (ref 2,4)

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

## Storage

Store below 25°C

## References

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1. Injectable Medicines Guide Medusa, downloaded 15/04/2025

2: Martindale accessed online 15/04/2025

3: [Organ Donation Transplant Ireland guidelines](#)

4: BNF accessed online 08/04/2025

## Therapeutic classification

Thyroid/Endocrine (Search term thyroxine)