West of Scotland NEONATAL PARENTERAL Drug Monographs

Levothyroxine

FORM Vial containing 500 micrograms levothyroxine powder for reconstitution

(L-Thyroxine sodium 514 microgram)

INDICATION Treatment of congenital hypothyroidism where patient is Nil By Mouth

DOSE RANGE

AGE	DOSE	FREQUENCY	ROUTE
Neonate with birth weight < 2.5 kg	Initially 10-15 micrograms/kg.	Once daily	IV
Neonate with birth weight ≥ 2.5 kg	Initially 50 microgram	Once daily	IV
	Then as directed by Endocrine consultant		
1 month – 6 months	Initially 5micrograms/kg (Max dose 50micrograms)	Once daily	IV
	Then as directed by Endocrine consultant		

RECONSTITUTION Reconstitute the lyophilized Levothyroxine Sodium powder by aseptically

adding the 5mL of water for injection (contained within the box). This gives a 500microgram/5mL levothyroxine solution for injection. Shake

vial to ensure complete mixing.

DILUTION

Not required.

To give:

50micrograms in 0.5ml25micrograms in 0.25ml

10micrograms in 0.1ml

METHOD OF ADMINISTRATION

Slow IV injection over 5 minutes

COMPATIBILITY

Solution compatibility		
Solution incompatibility	Do not administer with any other IV fluids	
IV Line compatibility		
IV Line incompatibility	Do not add to any other IV fluids	

THIS LIST IS NOT EXHAUSTIVE PLEASE CONTACT PHARMACY FOR FURTHER INFORMATION ON COMPATIBILITY WITH ANY MEDICINES NOT INCLUDED

CAUTIONS, CONTRA-INDICATIONS AND SIDE EFFECTS

- See Summary of Product Characteristics and most recent edition of BNF for Children (links below)

SPECIAL MONITORING REQUIREMENTS

When switching from oral to IV therapy Thyroid Function tests should be carried out after four days to determine if levels have altered.

FURTHER INFORMATION

Concurrent administration of phenytoin to babies on thyroid hormones

may induce SVT.

Meonatal

Levothyroxine_IVWOSNeo Page 1 of 2

West of Scotland NEONATAL PARENTERAL Drug Monographs

Levothyroxine may increase requirements for hypoglycaemic drugs and insulin.

PH

LICENSED STATUS Unlicensed import

LINKS BNF for Children: / Electronic Medicines Compendium

APPLICABLE POLICIES West of Scotland Neonatal Guidelines:

Consult local policy if applicable

Document Number:	002	Supersedes:	001
Prepared by:	Peter Mulholland	Checked by	WoS Neonatal Pharmacists
Date prepared	February 2020	Date updated	January 2023
Updated by	Natalie Donald	Review Date	January 2026

Administer reconstituted solutions immediately.

All vials, ampoules and infusion bags are for single use only unless otherwise stated.

Dose may vary depending on indication, age, renal function, hepatic function, and concomitant medications. This monograph should be used in conjunction with the package insert, BNF for Children, and Summary of Product Characteristics. For further advice contact your clinical pharmacist or pharmacy department.

Levothyroxine_IVWOSNeo Page 2 of 2