



NEONATAL Medication Monograph

LEVOTHYROXINE




This document should be read in conjunction with this [DISCLAIMER](#)

IV: Restricted: Requires Neonatologist or Endocrinologist approval before commencing

ORAL: Unrestricted: Any prescriber may initiate treatment as per guideline

Presentation	Tablet: 50microgram Ampoule: 200microg/mL (SAS)
Classification	Thyroid hormone
Indication	Treatment of hypothyroidism
Dose	Oral: 10 to 15 microgram /kg DAILY Adjust according to thyroid function tests IV: Initiated as per consultant 5 to 8microgram/kg DAILY Dose may be adjusted according to response
Dose Adjustment	Adjust dose according to thyroid levels
Monitoring	Blood levels of TSH (Thyroid Stimulating Hormone) Free T4 level Clinical signs of hyperthyroidism Bone mineral density
Compatible Fluids	Sodium Chloride 0.9%
Preparation	See Page 2
Administration	Oral: Dose should be administered before feeds or 2 hours after. IV: Slow IV push – over 3 to 5 minutes
Storage	Refrigerate tablets between 2 to 8°C. Use prepared IV or oral solution immediately and discard excess.

Preparation	<p>Oral:</p> <p>Crush and dissolve ONE levothyroxine (50microgram) tablet with 5mL of water.</p> <p>Concentration is 50microgram/5mL = <u>10microgram/mL</u></p> <p>IV:</p> <p>Withdraw 1mL (200microg) of levothyroxine and dilute with 9mL of Sodium Chloride 0.9%</p> <p>Final Volume is 10mL</p> <p>Concentration is 200microg/10mL = <u>20microgram/mL</u></p>	
Adverse Reactions	<p>Common</p> <p>Serious</p>	<p>Increased blood pressure, increased heart rate, decreased bone mineral density</p> <p>Seizures, rash</p>
Interactions	<p>Ferrous sulphate, calcium carbonate, omeprazole, famotidine– can affect thyroxine absorption - separate dose administration times</p> <p>Contact Pharmacy for IV Compatibility</p>	
Notes	<p>Intravenous levothyroxine requires an SAS Category A form to be completed</p>	
Guidelines & Resources	<p>Thyroid Disorder: Care of the Infant Born to Women with Thyroid Disorders</p>	
References	<p>Truven Health Analytics. Levothyroxine. In: NeoFax [Internet]. Greenwood Village (CO): Truven Health Analytics; 2020 [cited 2020 July 13]. Available from: https://neofax.micromedexsolutions.com/</p> <p>Takemoto CK, Hodding JH, Kraus DM. Pediatric & neonatal dosage handbook with international trade names index: a universal resource for clinicians treating pediatric and neonatal patients. 24th ed. Hudson (Ohio): Lexicomp; 2019.</p> <p>Australian Medicines Handbook. Levothyroxine. In: Australian Medicines Handbook Children's Dosing Companion [Internet]. Adelaide (South Australia): Australian Medicines Handbook; 2019 [cited 2020 July 13]. Available from: https://childrens.amh.net.au/</p>	

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