



NEONATAL



COLECALCIFEROL (Vitamin D3)

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

Presentation	Oral solution: 5000 Units / mL
Action & Indication	<p>Vitamin D3 Supplement. Regulates calcium homeostasis and bone metabolism. Increases intestinal absorption and renal reabsorption of calcium and phosphate. Promotes bone mineralisation.</p> <ul style="list-style-type: none"> • Infants with rickets • Infants with Vitamin D deficiency (25(OH)D) • Prophylaxis for infants born <35 weeks gestational age • Prophylaxis for infants with one or more risk factors for Vitamin D deficiency; <ul style="list-style-type: none"> ○ Infants born to a mother with low Vitamin D and receiving breast milk ○ Lack of exposure to sunlight ○ Dark skin ○ Conditions affecting Vitamin D metabolism and storage (hypoparathyroidism, renal osteodystrophy, cholestatic liver disease)
Dose	<p><u>INFANTS BORN ≥35 WEEKS GESTATION</u></p> <p>Prophylaxis for infants with one or more risk factors for Vitamin D deficiency:</p> <p>ORAL: 500 Units (0.1 mL) ONCE daily</p> <p><u>INFANTS BORN <35 WEEKS GESTATION</u></p> <p>Infants fed unfortified breast milk or term formula:</p> <p>ORAL: 500 Units (0.1 mL) ONCE daily</p> <p>Infants fed breast milk fortified with S26 SMA Human Milk Fortifier or Preterm formula:</p> <p>No vitamin D supplementation is required except in severe Vitamin D deficiency</p>

	<p><u>TREATMENT FOR SEVERE VITAMIN D DEFICIENCY (25(OH)D <30 nmol/L)</u></p> <p>ORAL: 1000 Units (0.2 mL) ONCE daily</p>
Monitoring	<p>Target Vitamin D3: 50-200 nmol/L</p> <p><u>INFANTS BORN <35 WEEKS (IN HOSPITAL)</u></p> <p>ALL infants born <35 weeks gestation should have 25(OH)D levels monitored at 4, 8 and 12 weeks of age (monthly) and/or just prior to discharge</p> <p>Alter treatment dose based on 25(OH)D level</p> <p>25(OH)D level >200nmol/L</p> <ul style="list-style-type: none"> • Dipstick urine daily. <ul style="list-style-type: none"> • If large amount of blood (3+) on two samples; organise for renal ultrasound • If renal ultrasound identifies renal calculi discuss with renal physician and pediatric urologist <p><u>DISCHARGE PLAN</u></p> <p>Infants born <35 weeks gestation</p> <ul style="list-style-type: none"> • If infant has vitamin D deficiency and is receiving treatment, then discharge with the current dosage and organize GP review at 6-8 weeks (GP letter required). • If infant has sufficient vitamin D with one or more risk factors, then continue prophylaxis vitamin D and organize GP review at 6-8 weeks (GP letter required). • If infant has sufficient vitamin D with no risk factors, then discharge without vitamin D <p>Infants born ≥35 weeks gestation with one or more risk factors listed above who are considered for vitamin D prophylaxis:</p> <ul style="list-style-type: none"> • No Vitamin D <u>level</u> is required prior to discharge • Commence prophylaxis Vitamin D as required and organise GP review at 6-8 weeks (GP letter required)
Administration	ORAL: When tolerating full feeds, give with feeds.
Adverse Effect	<p>Common: Nil</p> <p>Serious: nephrocalcinosis, renal calculi</p> <p>Over dosage symptoms: Poor feeding, vomiting, diarrhoea, weight loss, polyuria, sweating, irritability, elevated plasma calcium and phosphate in plasma and urine.</p>

Related clinical guidelines	Neonatal management for existing maternal conditions - Maternal Vitamin D deficiency Neonatal management on post-natal wards - Neonatal discharge / transfer planning
Comments	<p>Breast milk fortifiers and term and preterm formulas contain varying amounts of Vitamin D (Colecalciferol).</p> <p>All mothers with Vitamin D deficiency should seek the advice of their GP to become Vitamin D replete through Vitamin D supplementation.</p>
References	<p>Handbook AM. Australian Medicines Handbook 2016. Australian Medicines Hand; 2016.</p> <p>Mangum B. Neofax 2012. Thomson Reuters; 2012.</p> <p>Taketomo CK, Hodding JH, Kraus DM. Pediatric and neonatal dosage handbook. Hudson (OH): Lexi Comp; 2010.</p> <p>Paediatric Formulary Committee. BNF for Children: 2012-2013. Pharmaceutical Press; 2012.</p>

File path:			
Keywords:	Colecalciferol, Cholecalciferol, Vitamin D, Vit D, Neonate		
Publishing:	<input checked="" type="checkbox"/> Intranet <input checked="" type="checkbox"/> Internet		
Document owner:	Neonatology Directorate Management Committee		
Author / Reviewer:	KEMH & PCH Pharmacy / KEMH Dietetics / Neonatal Clinical Care Unit		
Date first issued:		Version:	3.1
Last reviewed:	September 2016	Next review date:	September 2019
Endorsed by:	Neonatology Directorate Management Committee	Date:	27/09/2016
Standards Applicable:	NSQHS Standards: 1  Clinical Care is Guided by Current Best Practice, 4  Medication Safety;		
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