

Guideline



Maternity - Vitamin D Screening and Management

Document Number:	SWSLHD_GL2023_022
Functional Sub-Group:	Clinical Governance
Summary:	This document provides guidance for the management of vitamin D supplementation for women and newborns.
Approved by:	Clinical and Quality Council
Publication (Issue) Date:	October 2023
Next Review Date:	October 2028
Replaces Existing Document:	MC_PD2017_737
Previous Review Dates:	N/A

Contents

<u>1.</u>	<u>Introduction</u>	4
<u>2.</u>	<u>The Aims / Expected Outcome of this guideline:</u>	4
<u>3.</u>	<u>Principles</u>	4
<u>4.</u>	<u>Procedure</u>	4
	<u>4.1. Care of the Woman and Neonate</u>	4
<u>5.</u>	<u>Definitions and Acronyms</u>	5
<u>6.</u>	<u>References and Links</u>	5

Review Process

Guideline Author	CMC Campbelltown Hospital (Blanka Blasko)
Guideline Owner	Women's Health Clinical Stream
Guideline Sponsor	Clinical Director, Women's Health
Contributing Stakeholders	<ul style="list-style-type: none"> Deborah Clair, CMC, Liverpool Hospital Kathryn Farrell, Clinical Manager, Women's Health, Narelle Surace, CME Birthing Unit, Campbelltown Hospital Nicole Greig, Antenatal Redesign Project Manager SWSLHD Rebecca Bedding, GPSC CMC Rebecca Broom - Senior Pharmacist NSW Medicines Formulary Change Lead SWSLHD Tracey Garland, Midwifery Educator, SWSLHD CEWD Dr Gauthami Bhagwanani, Clinical Director, Birthing Unit (BU) Liverpool Hospital Dr Shobha Mantravadi, O&G, Bankstown-Lidcombe Hospital Dr Angela Tan, Paediatrician, Campbelltown Hospital Aleisha Heys, CMC, Fairfield Hospital Dr Nina Reza Pour, O&G Registrar
Broad Consultation	<ul style="list-style-type: none"> Heads of Department, Women's Health Heads of Department, Paediatrics and Neonatology Midwifery Managers
Search Terms for Document	Vitamin D, antenatal screening, neonatal supplementation

Approval Process

Committee Name	Endorsement/Approval Date
SWSLHD Maternity Policy Committee	July 2022
Women's Health Heads of Department, Clinical Governance meeting	September 2022
Paediatrics Heads of Department, Clinical Governance meeting	September 2022
Nursing and Midwifery Clinical Practice and Advisory Committee	July 2023
Clinical and Quality Council	4 October 2023

Revision History

Version	Amendment Notes
October 2023 SWSLHD_GL2023_022	New district guideline

1. Introduction

Vitamin D (25-hydroxy vitamin D) is essential for absorption of calcium from the gut and bone mineralisation. The major source of vitamin D is ultraviolet B (UVB) exposure in sunlight. Vitamin D is essential in the absorption of calcium and phosphate, which assists in bone growth and development. This document provides guidance for the management of vitamin supplementation for women and newborns.

2. The Aims / Expected Outcome of this guideline:

To ensure:

- All pregnant and postnatal women are informed of the recommendation for a daily dose of 400 International Units (IU) of vitamin D via their multi-vitamin
- All women are given information and education regarding neonatal supplementation Colecalciferol (Vitamin D3).

3. Principles

- Universal screening for Vitamin D is not recommended for pregnant women.
- Pregnant women are advised to take Vitamin D 400IU daily as part of their multi-vitamin intake. This is the average amount needed by 97.5% of the population to maintain a serum 25(OH) D concentration $\geq 25\text{nmol/L}$ when UVB sunshine exposure is minimal.

4. Procedure

4.1. Care of the Woman and Neonate

Consensus-based recommendations³:

- Do not re-test vitamin D level in pregnancy, irrespective of the previous level.
- Do not routinely recommend testing for vitamin D status to pregnant women in the absence of a specific indication.

Education for women

- Advise all pregnant women, irrespective of their skin pigment and or/ sun exposure, to take 400IU of vitamin D daily during pregnancy as part of a multivitamin.
- Vitamin D 400 units/day (10 micrograms) is adequate to prevent rickets and has been recommended for all infants from birth to 12 months of age, independent of their mode of feeding.
- All women are given a pamphlet and education regarding neonatal supplementation with Colecalciferol (Vitamin D3).

Sunshine Exposure

- Ideally, all pregnant women should try to get a few minutes of direct sunshine (not behind a window) on their **arms or legs (about 15% of body surface)** on most days.
- Compromise between sunburn/cancer/aging risk and adequate Vitamin D dosing requires fair-skinned women to use full sun protection unless UV index less than 3. Sunscreen use does not appear to significantly reduce vitamin D levels.

5. Definitions and Acronyms

Term	Definition
IU	International Units
L	Litre
nmol	Nanomole
OH	Hydroxyl
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RCT	Randomised control trial
Rickets	Rickets is a condition that affects bone development in children . It causes bone pain, poor growth and soft, weak bones that can lead to bone deformities. Adults can experience a similar condition, which is known as osteomalacia or soft bones.
UV	Ultraviolet
UVB	Ultraviolet B

6. References and Links

Articles / Research / Resources

1. Munns C F, Shaw N, Kiely M. Global Consensus Recommendations on Prevention and Management of Nutritional Rickets. Journal of Clinical Endocrinology and Metabolism. 2016;101(2):394-415.	Link
2. Department of Health, Clinical Practice Guidelines: Pregnancy care, 2020	Link
3. RANZCOG, Vitamins and mineral supplementation and pregnancy, 2019	Link