Department of Health Government of Nunavut	NURSING POLICY, PROCEDURE AND PROTOCOLS	
	Community Health Nursing	
TITLE:	**SECTION:**	**POLICY NUMBER:**
RN Initiated Vitamin D Supplementation Medical Directive	Pharmacy	09-024-00
EFFECTIVE DATE: / **REVIEW DUE:**	**REPLACES NUMBER:**	**NUMBER OF PAGES:**
May 2024 / May 2029	NEW	4
APPLIES TO:		
All Registered Nurses in Community Health Centres, Iqaluit, Rankin Inlet and Cambridge Bay Public Health Units		

1. BACKGROUND:

Nunavummiut experience high rates of vitamin D deficiency and rickets. Most Nunavummiut can be considered at high risk of vitamin D deficiency and associated conditions. Supplementation dosages in this protocol are in addition to any dietary intake. Women should be encouraged to breastfeed for as long as possible and to take vitamin D supplements while breastfeeding. All infants in Nunavut should be started on routine vitamin D supplementation from birth. Health Canada recommends that all adults over the age of 51 take a vitamin D supplement daily. This is recommended to support vitamin D status during a life stage where the likelihood of bone loss is increasing. **This policy provides authority for RNs to initiate Vitamin D supplementation, outlines prescription and dispensing parameters and provides appropriate dosing.**

2. POLICY:

2.1. Vitamin D is a treatment code A medication as per the GN Drug Formulary. All RN's who initiate Vitamin D supplementation are authorized to dispense a maximum duration of one original package or 30-day supply. If a patient requires vitamin D supplements beyond initial supply dispensed, a retail pharmacy can be contacted by either the patient or health care provider for further supply.

2.2. **Authorized implementors**: All RN's employed by Health working in community health centres or regional public health units. For Iqaluit Public Health, authorized implementors are nurses working in the mat/child programs.

3. PRINCIPLES:

3.1. All RNs are expected to be familiar with and follow the standards of practice of their regulatory bodies.

3.2. RNs will facilitate the delivery of appropriate medications in partnership with the client/family that promotes safe, effective client care.

3.3. RNs are guided by the twelve rights of medication administration, to ensure safe dispending and administration.

4. DEFINITIONS:

4.1. Dispensing: involves the selection, preparation, and transfer of one or more prescribed drug doses to a client or his/her representative for administration. This is different from administration of medications as it is a transferred function.

4.2. Medication Administration: the process of giving a medication to a client.

5. PROTOCOL/PROCEDURE

5.2: When assessing whether a client requires vitamin D supplementation, a review of current prescriptions should be conducted to determine if a client has a pre-existing vitamin D prescription. If they do, the retail pharmacy vitamin D stock should be dispensed and given to the client. If a client does not have a vitamin D prescription on file, a RN may dispense up to one bottle of Vitamin D drops or one package of supplements, using the table below. The RN or patient can then call a retail pharmacy for subsequent doses to be sent to the health centre without a prescription.

Note: for those who are not covered under NIHB (Non-Insured Health Benefits) there will be a payment from the retail pharmacy for vitamin D supplements.

5.3: During routine visits, RNs should take three steps:

1. Assess each pregnant woman, infant, and child for nutritional risks for vitamin D deficiency. Ask about dietary and supplemental intake of vitamin D, but also consider the impacts of socio-economic and other social determinants of health.
2. Determine appropriate dosage for vitamin D supplements.
3. Support and monitor adherence to dietary and supplementation recommendations.

Life stage	Year Round Dosage	Dosage Availability
Infants < 2years: receiving breast milk or formula	800 IU/Day	2 Baby Ddrops™
Children 2-18 years	400 IU/Day	daily multivitamin
Pregnant* and nursing women	1000 IU/Day	vitamin D supplement
Adults > 51 years	400 IU/Day	daily multivitamin

*in addition to the vitamin D in prenatal supplements

From birth to 2 years old, vitamin D can be given as drops; after age 2 a multi-vitamin with 400 IU of vitamin D is appropriate (covered by NIHB until age 5). Once over the age of 51, 400 IU of vitamin D can be obtained by taking a multivitamin.

5.4: Assessing for risk:

Maternal Risk Factors

- Low intake of vitamin D-rich foods (consuming <2 cups/day of milk or fortified soy beverage, low consumption of fish and sea mammals)
- Lack of vitamin D supplementation during pregnancy
- Use of certain medications (e.g., some antiretrovirals and antiepileptics)
- Multiple pregnancies
- Smoking

Infant Risk Factors

- Mother not ingesting sufficient vitamin D supplements or otherwise at risk for vitamin D

deficiency, regardless of infant feeding mode

Child Risk Factors

- Low intake of vitamin D-rich foods
- Mother has risk factors for vitamin D deficiency
- Lack of vitamin D supplementation during infancy

General Risk Factors

- Darker skin pigmentation
- Food insecurity
- Obesity
- Living in communities north of 55° latitude (all of Nunavut)
- Living in an area where vitamin D deficiency is prevalent
- Extensive use of sunblock or skin coverage by clothing, or lack of exposure to the outdoors
- Low socio-economic conditions

Note: The presence of a single risk factor may put a patient in the "high risk" category. In uncertain cases, consider the individual at high risk. For those who are high risk, refer to section six: special considerations.

5.5 Optimizing Patient-Centred Treatment

Taking supplementation regularly, as prescribed ensures effective vitamin D deficiency prevention. Strategies found to most improve engagement in treatment includes a positive relationship with the health care provider; patient education, shared-decision making, awareness and promotion of vitamin D at each health visit; and linking medication-taking with existing routines to support habit-based behaviour.

6. Special Considerations

High-risk situations:

- Mothers and infants who are assessed with multiple risk factors or living in specific communities where the diagnosis of rickets or symptomatic vitamin D deficiency occurs frequently; and
- Where there are ongoing concerns about the adequacy of maternal-infant adherence to guidelines for uninterrupted daily vitamin D supplementation.

For those who may require higher-dose oral supplementation, a consult should be made to the community MD, NP or pediatrics.

7. Documentation

7.1. All medications administered must be documented in the client's health record immediately after administration.

7.2. Refusal of medication must be documented in the client record along with the reason for refusal.

8. Related Policies, Protocols and Legislation

8.1. Policy 09-002-00: RN Initiated Drug Therapy
8.2. Policy 09-005-00: Dispensing Medications
8.3. Vitamin D Supplementation Protocol
8.4. GN Drug Formulary
8.5. Policy 07-039-00 Informed Refusal of Treatment
8.6. Policy 09-006-00 Administering or Dispensing Medications-Documentation
8.7. Policy 09-011-00 Labelling Pharmaceutical Agents

9. References

1. Nunavut Pharmacy & Therapeutics Committee. *Nunavut Drug Formulary.*
2. Irvine, James; Ward, Leanne M.; Canadian Paediatric Society: Position Statement *Preventing symptomatic vitamin D deficiency and rickets among Indigenous infants and children in Canada.* Paediatric Child Health 2022 27(2):127
3. Health Canada. (2022, May 3). *Advice on vitamin and mineral supplementation – Canada's Food Guide*.

Approved By: J. Busse	Date: 05 June 2024
Janet Busse, Chief Nursing Officer	
Approved By:	Date: May 22. 2024
Francois de Wet, Medical Chief of Staff on behalf of the Medical Advisory Committee	