

crohn's colitis

Name of Clinical Care Pathway

Vitamin D Replacement

Objective

Monitor for and manage vitamin D deficiency

Patient Population

Adults (>18 years) with a known diagnosis of IBD and low serum 25-hydroxyvitamin D

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Highlight Box

Vitamin D deficiency is common among IBD patients. Restoring and maintaining appropriate levels of vitamin D may help maintain remission.

These clinical decision support tools were developed by Canadian experts in IBD, based on their interpretation of current evidence and considerations specific to Canadian healthcare. International guidelines from Europe and the United States are available. However, these may reflect regional factors not directly applicable in Canada.

Introduction

This care protocol provides a general guideline for monitoring and managing vitamin D deficiency in adults with inflammatory bowel disease. The availability of the listed options for vitamin D replacement may vary across organizations.

IBD Provider:

1. Check serum vitamin D annually
 - a. If 75-125nmol/l - recommend 1000 - 2000 IU daily
 - b. 50-75 nmol/L - recommend 5000-10000 IU daily, or replace
 - c. Replace if <50 nmol/L
2. Re-assess vitamin D levels at 4 months, if vitamin D deficiency identified
3. Generate a vitamin D replacement Rx as per options for replacement below and give it to support staff

Support Staff:

1. Use letter templates for low vitamin D and send them to the patient and one to the patient's GP.
2. Print a bloodwork requisition to test vitamin D and calcium levels for the patient to complete in 4 months

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Table 1: Options for replacement

| Type of vitamin D | Availability | Dosage | Form | Route |
|------------------------------------|--------------|--|-------------|---------------|
| Vitamin D3 | OTC | 400 IU, 1000 IU | Tablet | Oral |
| Vitamin D3 (D-VI-SOL) | OTC | 400 IU/ml, | Liquid | Oral |
| Vitamin D3 (DROPS) | OTC | 600 or 1000 units/drop (5ml=180drops) | Liquid | Oral |
| Vitamin D3 (Euro-D) | Rx | 10,000 IU | Capsule | Oral |
| Vitamin D3 | Rx | 2000-75,000 IU | Capsule/Tab | Oral |
| Vitamin D2 (OSTO-D2, D-FORTE) | Rx | 50,000 IU | Capsule | Oral |
| Calcitriol (ROCALTROL) | Rx | 0.25ug, 0.5ug | Capsule | Oral |
| Cholecalciferol (in sesame oil) | Rx | 250,000 - 500,000 IU | Injection | Intramuscular |

Table 2: Recommended dose

| | |
|-----------------|-----------------|
| Vitamin D level | Intramuscular** |
| 50-75 nmol/L | 250,000 IU x 1 |
| <50 nmol/L | 500,000 IU x 1 |

** not applicable to pediatrics

Note: Vitamin D3 may have a longer half-life than vitamin D2 and may be more potent, causing two- to threefold greater storage of vitamin D.

Other resources

Vitamin D supplementation evidence <https://www.rxfiles.ca/rxfiles/uploads/documents/Vitamin-D-Overview-QandA.pdf>

Patient education: Vitamin D deficiency (Beyond the Basics) (freely accessible)
<https://www.uptodate.com/contents/vitamin-d-deficiency-beyond-the-basics#H13>

Easy to read list of common foods rich in vitamin D <https://osteoporosis.ca/bone-health-osteoporosis/calcium-and-vitamin-d/vitamin-d/>